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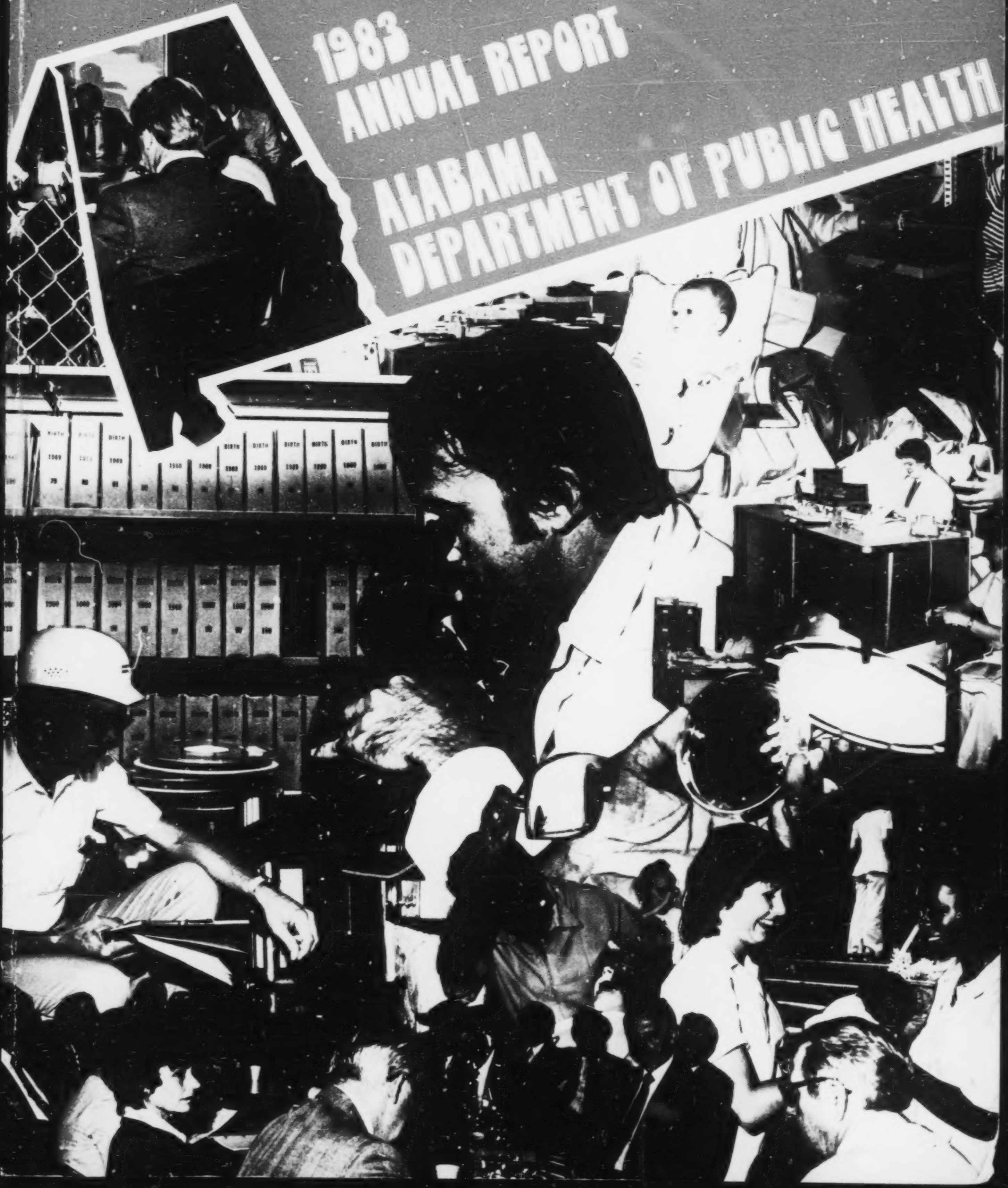
# 1983 ANNUAL REPORT

# ALABAMA DEPARTMENT OF PUBLIC HEALTH



# TABLE OF CONTENTS

PAGE

LETTER OF TRANSMITTAL .......... iv

STATE COMMITTEE OF PUBLIC HEALTH .......... v

STATE HEALTH OFFICERS AND DIRECTORS OF ADMINISTRATIONS AND BUREAUS .......... vi

ADMINISTRATION .......... 1
- Chemical Test for Intoxication Program .......... 3
- Finance Division .......... 3
- Internal Audit Division .......... 8
- Legal Division .......... 8
- Division of Personnel and Training Services .......... 9

PUBLIC HEALTH AREAS .......... 11
- Public Health Area I .......... 13
- Public Health Area II .......... 17
- Public Health Area III .......... 19
- Public Health Area IV .......... 21
- Public Health Area V .......... 23
- Public Health Area VI .......... 24

BUREAU OF AREA HEALTH SERVICES .......... 27
- Division of Community Health Services Coordination .......... 29
- Division of Emergency Medical Services .......... 30
- County Health Department Activities .......... 32

CLINICAL LABORATORY ADMINISTRATION .......... 33
- Administrative Support Services .......... 35
- Clerical Division .......... 35
- MCH/FP Division .......... 35
- Scientific Services Division .......... 35

Bureau of Bacteriology .......... 37
- General Bacteriology Division .......... 37
- Enteric Bacteriology Division .......... 39
- Gonorrhea Division .......... 39
- Rabies Division .......... 39
- Sanitary Bacteriology Division .......... 42
- Parasitology Division .......... 42

Bureau of Serology .......... 43
- Syphilis Serology Division .......... 43

PAGE

Special Serology Division ........ 45
Indirect Fluorescent Antibody Division ........ 46
Metabolic Division ........ 46

Bureau of Mycobacteriology ........ 48
Tuberculosis Division ........ 48
Mycology Division ........ 48

Branch Laboratories ........ 49
Birmingham Branch Laboratory ........ 49
Decatur Branch Laboratory ........ 50
Dothan Branch Laboratory ........ 50
Mobile Branch Laboratory ........ 51

BUREAU OF DENTAL HEALTH ........ 59
Dental Health Education ........ 61
Nursing Home and Handicapped Programs ........ 62
Fluoridation ........ 63
Fluoride Mouthrinse School Program ........ 64
Clinical Activities ........ 65
Sealant Program ........ 69
Survey Program ........ 69

ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION ........ 71
Bureau of General Sanitation ........ 73
Division of Vector Control ........ 73
Division of Waste Disposal ........ 75

Bureau of Inspection ........ 80
Division of Food Sanitation ........ 80
Division of Lodging Sanitation ........ 84
Division of Milk Sanitation ........ 84

Bureau of Radiological Health ........ 84
Radioactive Materials Division ........ 85
X-ray Compliance Division ........ 85
Emergency Planning and Environmental Monitoring Division ........ 85

Bureau of Licensure and Certification ........ 86
Certification Division ........ 86
Field Services Division ........ 86
Licensure Division ........ 87
Plans and Construction Division ........ 88

BUREAU OF EPIDEMIOLOGY AND CONSULTATION ........ 91

PAGE

FAMILY HEALTH ADMINISTRATION ........ 111
  Bureau of Management/Information Systems ........ 115
  Bureau of Planning and Development ........ 116
  Bureau of Resource Management ........ 116
  Bureau of Quality Assurance ........ 116

BUREAU OF PREVENTIVE HEALTH SERVICES ........ 117
  Division of Hypertension ........ 119
  Division of Immunization ........ 120
  Tuberculosis Division ........ 125
  Division of Venereal Disease Control ........ 136

BUREAU OF PUBLIC HEALTH NURSING ........ 153
  Division of Home Health Services ........ 155
  Division of Planning, Training and Evaluation ........ 162

SPECIAL SERVICES ADMINISTRATION ........ 165

 Bureau of Health Data Systems ........ 167
  Data Services Division ........ 167
  Technical Services Division ........ 167

 Bureau of Primary Prevention ........ 167
  Division of Graphic Communication ........ 167
  Division of Health Education ........ 169
  Division of Health Information ........ 170

 Bureau of Vital Statistics ........ 171
  Division of Microfilm Services ........ 171
  Division of Record Services ........ 171
  Division of Registration Services ........ 172
  Division of Statistical Services ........ 173

ORGANIZATION OF THE DEPARTMENT OF PUBLIC HEALTH ........ 177

ASSISTANT STATE HEALTH OFFICERS, LOCAL HEALTH OFFICERS AND HEALTH SERVICE ADMINISTRATORS ........ 178

INDEX ........ 179

**State of Alabama**

**DEPARTMENT OF PUBLIC HEALTH**

**State Office Building**
**Montgomery, Alabama 36130**

1875

**IRA L. MYERS, M.D.**
**STATE HEALTH OFFICER**

The Honorable George C. Wallace
Governor of Alabama
State Capitol
Montgomery, Alabama 36130

Dear Governor Wallace:

Public health serves every resident of, and visitor to, the state; therefore, the responsibilities of the Department of Public Health are awesome. As we meet each challenge and opportunity, we realize anew that the needs are numerous and some are acute. In accepting our obligations, we rely on state and local staff who are conscientious about quality performance whether the task is reduction in infant mortality, prehospital care for heart attack victims, clean lodging and safe food for travelers, or promotion of individual responsibility for being healthy.

This summary of 1983 Health Department activities reveals significant successes. We have increased our efforts for improvement.

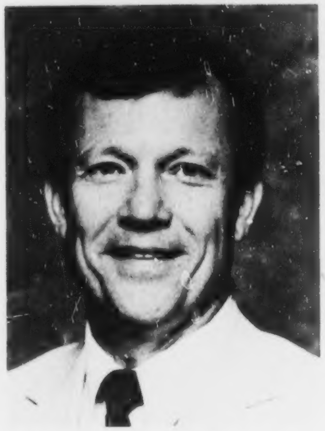
With this annual report the State Committee of Public Health and departmental staff acknowledge your efforts and legislative action and request your continued support for public health.

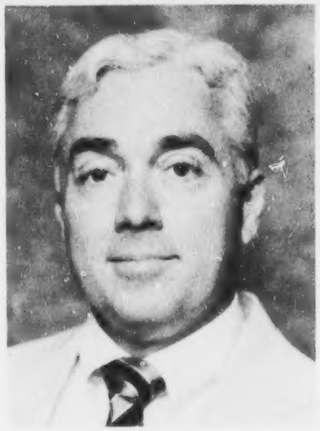
Sincerely yours,

Ira L. Myers

Ira L. Myers, M.D.
State Health Officer

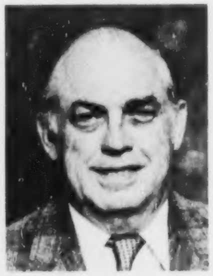
# MEMBERS
# STATE COMMITTEE OF PUBLIC HEALTH


Kenneth C. Yohn, M.D.
Chairman
Eufaula


William R. Bridges, M.D.
Vice Chairman
Mobile

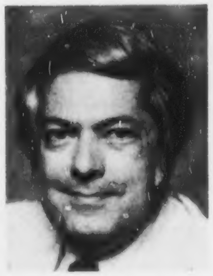
Ira L. Myers, M.D.
Secretary
Montgomery

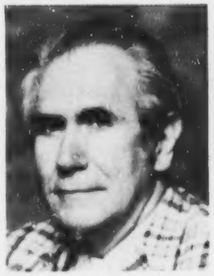
Jeff H. Beard, M.D.
Mobile


Ernest C. Brock, Jr., M.D.
Tuscaloosa

Garland C. Hall, Jr., M.D.
Moulton

William D. Lazenby, M.D.
Opelika

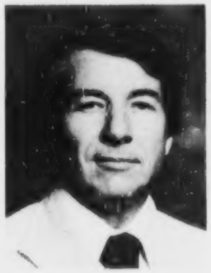

Peter W. Morris, M.D.
Birmingham


Ira B. Patton, M.D.
Oneonta

W. Earle Riley, M.D.
Fairfield

Aubrey E. Terry, M.D.
Russellville

William C. Waller, M.D.
Montgomery


James E. West, M.D.
Anniston

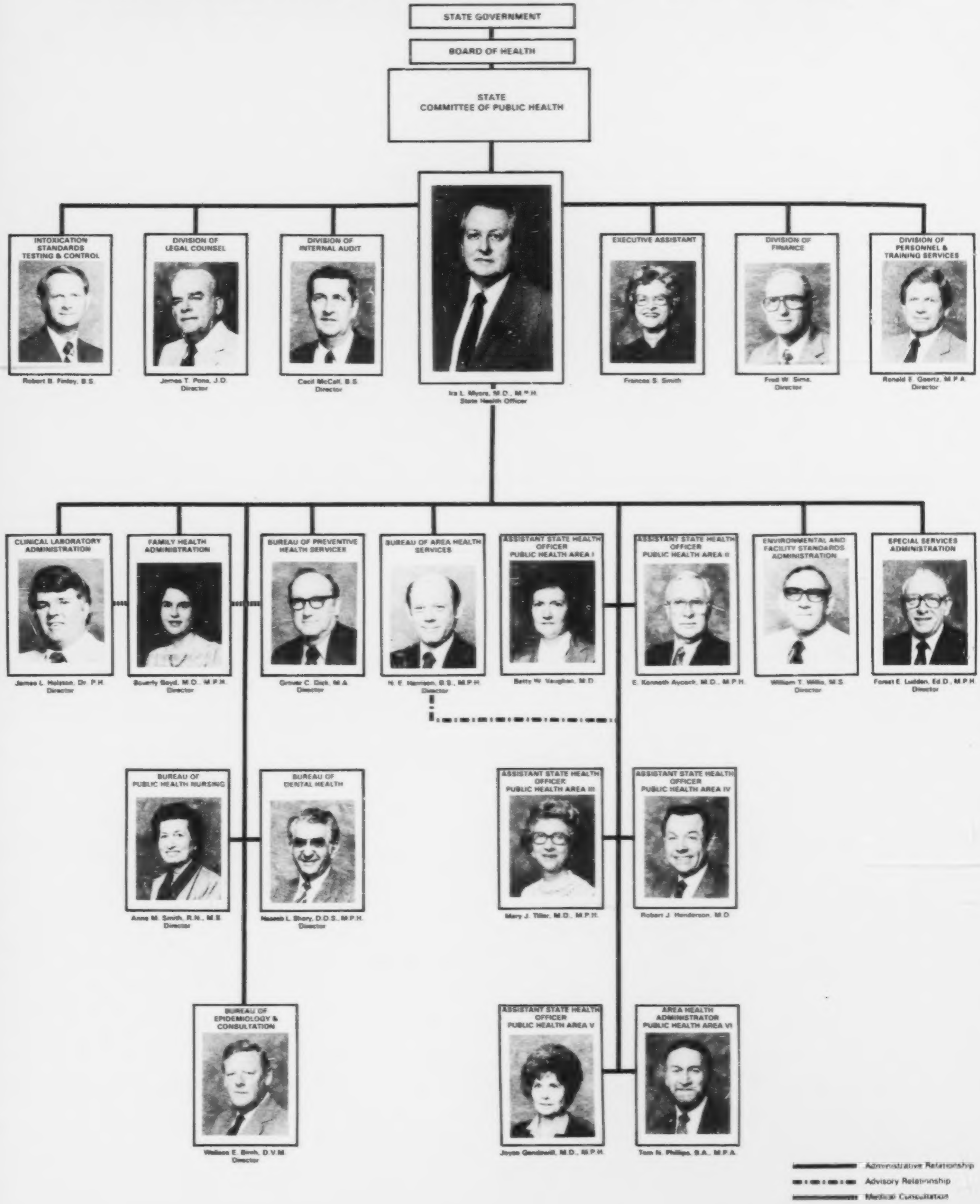
Council on Animal &
Environmental Health
Fred D. Hunker, M.D.
Montgomery

Council on Dental Health
Roy R. Kracke, Jr., D.M.D.
Birmingham

Council on Health Costs,
Administration &
Organization
Bill Fuller

Council on Prevention of
Disease & Medical Care
Margaret Millsap, Ed.D.
Birmingham

# ORGANIZATION OF THE ALABAMA DEPARTMENT OF PUBLIC HEALTH



STATE GOVERNMENT

BOARD OF HEALTH

STATE COMMITTEE OF PUBLIC HEALTH

Ira L. Myers, M.D., M.P.H.
State Health Officer

INTOXICATION STANDARDS TESTING & CONTROL
Robert B. Finley, B.S.

DIVISION OF LEGAL COUNSEL
James T. Pons, J.D.
Director

DIVISION OF INTERNAL AUDIT
Cecil McCall, B.S.
Director

EXECUTIVE ASSISTANT
Frances S. Smith

DIVISION OF FINANCE
Fred W. Sims,
Director

DIVISION OF PERSONNEL & TRAINING SERVICES
Ronald E. Goertz, M.P.A.
Director

CLINICAL LABORATORY ADMINISTRATION
James L. Holston, Dr. P.H.
Director

FAMILY HEALTH ADMINISTRATION
Beverly Boyd, M.D., M.P.H.
Director

BUREAU OF PREVENTIVE HEALTH SERVICES
Grover C. Dick, M.A.
Director

BUREAU OF AREA HEALTH SERVICES
H. E. Harrison, B.S., M.P.H.
Director

ASSISTANT STATE HEALTH OFFICER PUBLIC HEALTH AREA I
Betty W. Vaughan, M.D.

ASSISTANT STATE HEALTH OFFICER PUBLIC HEALTH AREA II
E. Kenneth Aycock, M.D., M.P.H.

ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION
William T. Willis, M.S.
Director

SPECIAL SERVICES ADMINISTRATION
Forest E. Ludden, Ed.D., M.P.H.
Director

BUREAU OF PUBLIC HEALTH NURSING
Anne M. Smith, R.N., M.S.
Director

BUREAU OF DENTAL HEALTH
Naseeb L. Shory, D.D.S., M.P.H.
Director

ASSISTANT STATE HEALTH OFFICER PUBLIC HEALTH AREA III
Mary J. Tiller, M.D., M.P.H.

ASSISTANT STATE HEALTH OFFICER PUBLIC HEALTH AREA IV
Robert J. Henderson, M.D.

BUREAU OF EPIDEMIOLOGY & CONSULTATION
Wallace E. Birch, D.V.M.
Director

ASSISTANT STATE HEALTH OFFICER PUBLIC HEALTH AREA V
Joyce Gandswill, M.D., M.P.H.

AREA HEALTH ADMINISTRATOR PUBLIC HEALTH AREA VI
Tom N. Phillips, B.A., M.P.A.

Administrative Relationship
Advisory Relationship
Medical Consultation

# ADMINISTRATION

# ADMINISTRATION

The era of promoting positive health has arrived for the Alabama Department of Public Health. Whereas prevention implies neutralization of a single cause of disease, health promotion is a broader, more affirmative approach which enhances the ability of the individual to resist disease and be healthier. The well informed individual must assume responsibility for selecting a lifestyle which is conducive to good health and improves the quality of life. Health promotion is a cost effective means of alleviating human suffering.

This emphasis was inevitable because:

(1) The ability of medicine to reverse the effects of self-abuse, genetic problems and environmental defilement is diminishing.
(2) Society is close to its limit of willingness to pay for medical intervention and rehabilitation.
(3) Federal programs which increase availability of funds for personal health care are being eliminated.

The Health Department has a rich history of providing services in communities, and its successes are numerous. Improving life expectancy, increasing the control of communicable diseases, reducing infant mortality, decreasing accidental death rates and cleaning up the environment illustrate improvement in the health status of Alabamians.

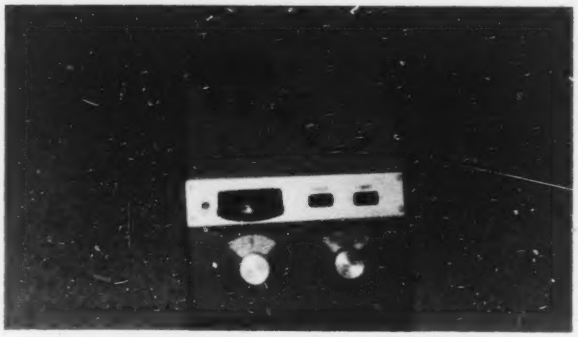
Alabama has always been above the national average in infant mortality rates, but it is gradually getting closer to the national average. Family planning, well child clinics, and the Women, Infants and Children Supplemental Food Program contribute to a healthier start in life for many infants.

Immunization to prevent childhood diseases has an impressive record. The current immunization level of school age children is 98 percent. The infrequency of vaccine preventable diseases shows the effectiveness of this program.

After several years of increase in sexually transmitted diseases, there seems to be a reversal of the trend. In 1983 gonorrhea decreased 8 percent; penicillin-resistant gonorrhea was down 29 percent; and syphilis cases were 8 percent fewer than the year before. But these diseases are not controlled yet. Alabama far exceeds the national average.

As life expectancy increases, care for the elderly becomes essential. The Health Department's response to this need is home health care which is less expensive than institutional care.

As these examples of public health activities illustrate, the Health Department still has a role in the wide spectrum of health care—rehabilitation, treatment, prevention and promotion. The more emphasis placed on promotion and prevention the less is needed on treatment and rehabilitation. Not only are health promotion and prevention more cost effective but they also reduce suffering, enhance vitality and create a feeling of well-being. Therefore long-range goals for positive health must be incorporated in daily activities.



*This instrument aids law enforcement in measuring blood alcohol levels.*

## Chemical Test for Intoxication Program

The state's 1969 Chemical Test for Intoxication Act (Implied Consent law) gives the State Board of Health the responsibility for approving the testing instruments, the methods of analyses, and the laboratory procedures and for certifying any personnel participating under the authority of the law to conduct the analyses. Certification is based on the education and experience of the persons as well as their producing accurate results when utilizing the approved procedures. During 1983 this division trained 237 operators of breath testing instruments.

In November 1983 the State Committee of Public Health approved a fourth breath testing instrument to be utilized by law enforcement agencies to measure the blood alcohol levels on subjects suspected of operating a motor vehicle while under the influence of alcohol. The approval of this instrument brings into the program the latest electronic developments utilizing the microprocessor to program the procedures electronically.

At the close of the year, 225 breath testing instruments were being used in the state. The location of these instruments makes available to every law enforcement agency the opportunity to test suspected drivers and determine the blood alcohol content. This program is essential in that it is the only way to determine the degree to which the brain is affected by alcohol and, ultimately, to determine the capability of the driver to operate an automobile safely.

## Finance Division

The Finance Division is the focal point for all financial transactions of the State Health Department and the fiscal agent for most of the county health departments. It is responsible for assuring that funds are available and are expended prudently to provide public health care.

Tables 1-1, 1-2 and 1-3 report on receipt and expenditure of funds. Graphs 1-1 and 1-2 summarize these functions.

## TABLE 1-1
## SUMMARY OF RECEIPTS, DISBURSEMENTS AND BALANCES BY SPECIAL SOURCE OF FUNDS
## FISCAL YEAR 1983

| Source | Balance 10-1-82 | Receipts | Expended | Balance 9-30-83 |
|---|---|---|---|---|
| **STATE AND REVENUE FUNDS** | | | | |
| General Fund—Health | 207,462.59 | 15,197,416.05 | 15,106,208.41 | 298,670.23 |
| ASETF Perinatal Transfer | 381,764.34 | 791,706.00 | 798,519.39 | 374,950.95 |
| ASETF Immunization | 477.31 | 200,000.00 | 179,386.99 | 21,090.32 |
| ASETF School Insp. Transfers to Counties | —0— | 195,794.00 | 195,794.00 | —0— |
| Revolving Funds | —0— | —0— | 5,550.34 | (5,550.34) |
| **Total** | 589,704.24 | 16,384,916.05 | 16,285,459.13 | 689,161.16 |
| 2¢ Cigarette Tax | 367,570.95 | 2,021,625.80 | 2,074,095.35 | 315,101.40 |
| 1¢ Cigarette Tax | 518,586.63 | 1,174,201.21 | 1,537,459.59 | 155,328.25 |
| Radiation Safety | —0— | 1,885.00 | —0— | 1,885.00 |
| Hospital Licenses | 67,135.37 | 193,269.25 | 185,369.24 | 74,535.38 |
| Vital Statistics Fees | 683,199.04 | 1,109,711.75 | 1,000,864.03 | 792,046.76 |
| Emergency Medical Services | 104,405.48 | 34,960.00 | 36,096.08 | 103,269.40 |
| **Total** | 1,740,897.47 | 4,535,653.01 | 4,834,384.29 | 1,442,166.19 |
| **Regulatory Boards** | | | | |
| Hearing Aid Licenses | 6,069.51 | 8,490.00 | 3,408.76 | 11,150.75 |
| Registration of Sanitarians | 18,887.13 | (18,887.13) | —0— | —0— |
| **Total** | 24,956.64 | (10,397.13) | 3,408.76 | 11,150.75 |
| **TOTAL STATE AND REVENUE FUNDS** | 2,355,558.35 | 20,910,171.93 | 21,123,252.18 | 2,142,478.10 |
| **FEDERAL FUNDS** | | | | |
| **Family Planning** | | | | |
| Title X | 80,014.13 | 2,944,318.04 | 3,174,343.04 | (150,010.87) |
| Title XIX | 467,149.14 | 350,259.48 | 690,682.84 | 126,725.78 |
| Patient Fees | 506,947.33 | 536,420.09 | 490,067.31 | 553,300.11 |
| **Total** | 1,054,110.60 | 3,830,997.61 | 4,355,093.19 | 530,015.02 |
| **Maternal & Child Health** | | | | |
| Title V, Sec. A | 115.00 | (115.00) | —0— | —0— |
| Title V, Sec. MR | 1,723.66 | 93,000.00 | 93,972.24 | 751.42 |
| Improved Pregnancy Program | 2,179.71 | 15,956.52 | 18,136.23 | —0— |
| MCH—HIM | 6,950.50 | 261,000.00 | 274,397.64 | (6,447.14) |
| MCH—SEC 330 | —0— | (13,407.50) | (13,407.50) | —0— |
| ARC—SEICH | 2,352.50 | (13,930.20) | (11,577.70) | —0— |
| MCH—SIDS | 376.72 | 25,697.66 | 26,074.38 | —0— |
| Third Party Participation | 403,640.26 | 187,775.65 | 831.55 | 590,584.36 |
| **Total** | 417,338.35 | 555,977.13 | 388,426.84 | 584,888.64 |
| **Environmental Protection Agency** | | | | |
| Water Improvement—106 | 11.81 | —0— | 11.81 | —0— |
| Water Improvement—205—G | 10,654.04 | —0— | 10,654.04 | —0— |
| **Total Water Improvement** | 10,665.85 | —0— | 10,665.85 | —0— |
| Air Pollution | 288 | —0— | 288 | —0— |
| Safe Drinking Water | 82.00 | —0— | (82.00) | 164.00 |
| Solid & Hazardous Waste | 197.10 | —0— | 197.10 | —0— |
| **Total** | 10,947.83 | —0— | 10,783.83 | 164.00 |
| **Block Grants** | | | | |
| MCH Block | 92,769.63 | 8,055,066.00 | 7,976,483.57 | 171,352.06 |
| Preventive Health Block | 30,635.33 | 1,942,350.00 | 1,834,162.43 | 138,822.90 |
| **Total** | 123,404.96 | 9,997,416.00 | 9,810,646.00 | 310,174.96 |

## TABLE 1-1 (continued)
## SUMMARY OF RECEIPTS, DISBURSEMENTS, AND BALANCES BY SPECIAL SOURCE OF FUNDS
## FISCAL YEAR 1983

| Source | Balance 10-1-82 | Receipts | Expended | Balance 9-30-83 |
|---|---|---|---|---|
| **U.S. Public Health Service** | | | | |
| Emergency Medical Services | 7.98 | 122,601.02 | 122,609.00 | —0— |
| Black Lung | —0— | 21,931.20 | 20,902.90 | 1,028.30 |
| Refugee Program | 127.52 | 16,500.00 | 15,712.49 | 915.03 |
| Hypertension | 6.81 | 7,359.93 | 7,366.74 | —0— |
| Rural Health Affairs | 2,364.22 | (2,364.22) | —0— | —0— |
| **Total** | 2,506.53 | 166,027.93 | 166,591.13 | 1,943.33 |
| **Center for Disease Control** | | | | |
| Risk Reduction | 6,712.09 | 13,387.61 | 17,507.86 | 2,591.84 |
| Dental | 452.22 | 120,420.29 | 20,872.51 | —0— |
| Venereal Disease | 8,597.72 | 736,691.51 | 749,336.46 | (11,785.23) |
| Immunization | 810.22 | 380,500.00 | 355,904.32 | 25,405.90 |
| **Total** | 8,834.25 | 1,150,999.41 | 1,143,621.15 | 16,212.51 |
| **Other Federal Funds** | | | | |
| S.S.A. Certification | 4,003.00 | 412,186.87 | 250,226.01 | 165,963.86 |
| A.E.C Radiological Health | 1,219.26 | 20,188.47 | 4,156.95 | 17,250.78 |
| Dept. of Agriculture—WIC Food | 253,800.90 | 21,901,468.06 | 22,008,748.71 | 146,520.25 |
| NIH Cancer | 4,855.06 | —0— | —0— | 4,855.06 |
| Home Health Escrow | 120,382.29 | 172,713.34 | —0— | 293,095.63 |
| Home Health Administration | 221,597.58 | 7,966.00 | 46,967.11 | 182,596.47 |
| Emergency Medical Services—ARC | 102.60 | 166,697.47 | 166,800.07 | —0— |
| NCH Vital Statistics | 233.23 | 83,500.00 | 82,053.24 | 1,679.99 |
| Revolving Funds | —0— | —0— | (217,542.83) | 217,542.83 |
| **Total** | 606,193.92 | 22,764,720.21 | 22,341,409.26 | 1,029,504.87 |
| **TOTAL FEDERAL FUNDS** | 2,223,336.44 | 38,466,138.29 | 38,216,571.40 | 2,472,903.33 |
| **LOCAL & MISCELLANEOUS FUNDS** | | | | |
| Dental Contracts | 25,086.42 | 73,499.17 | 44,638.51 | 53,947.08 |
| Lab—Rubella | 18,972.65 | 6,870.00 | —0— | 25,842.65 |
| Lab. MCH | 70,211.99 | 125,000.00 | 78,065.52 | 117,146.47 |
| Indirect Cost Earned | 1,795,746.19 | 1,485,465.98 | 1,878,014.15 | 1,403,198.02 |
| Laboratory—Medicaid | 27,907.88 | 33,445.59 | 16,665.16 | 44,688.31 |
| Consumer Product Safety | 17,956.00 | —0— | 150.00 | 17,806.00 |
| Vital Statistics | 125,559.55 | 83,667.05 | 97,709.33 | 111,517.27 |
| Contract Safe Water Lab. | 14,612.19 | —0— | 2,941.21 | 11,670.98 |
| Lab. Training | 2,479.05 | 350.00 | —0— | 2,829.05 |
| OHTS—Child Restraint | (7,024.64) | 39,334.93 | 43,611.83 | (11,301.54) |
| Miscellaneous Reimbursement | (18,614.40) | 498,419.59 | 777,771.55 | (297,966.36) |
| Health Nuclear Monitoring | 40,082.65 | 21,917.33 | 35,840.77 | 26,159.21 |
| Local Appropriations | 4,545,390.57 | 30,022,060.08* | 31,077,767.47* | 3,489,683.18 |
| **Total** | 6,658,366.10 | 32,390,029.72 | 34,053,175.50 | 4,995,220.32 |
| **GRAND TOTAL** | 11,237,260.89 | 91,766,339.94 | 93,392,999.08 | 9,610,601.75 |

*Includes 18,994,242.02 in funds collected and expended locally

## TABLE 1-2
## SUMMARY OF PROGRAM DISBURSEMENTS BY GENERAL SOURCE OF FUNDS
## FISCAL YEAR 1983

| Program | All Funds | State & Revenue Funds | Federal Funds | Local & Other Funds |
|---|---|---|---|---|
| **ADMINISTRATION** | | | | |
| Executive | 294,631.86 | 294,135.15 | —0— | 496.71 |
| General Services | 1,804,440.63 | 542,692.42 | 168,310.21 | 1,093,438.00 |
| Finance | 650,902.93 | 382,811.13 | —0— | 268,091.80 |
| Internal Audit | 112,548.61 | 112,548.61 | —0— | —0— |
| Legal Services | 112,913.79 | 112,913.79 | —0— | —0— |
| Personnel | 176,004.73 | 170,980.52 | —0— | 5,024.21 |
| **Total** | 3,151,442.55 | 1,616,081.62 | 168,310.21 | 1,367,050.72 |
| **SPECIAL SERVICES** | | | | |
| Administration | 70,328.93 | —0— | —0— | 70,328.93 |
| Vital Statistics | 1,110,297.67 | 1,000,864.03 | 82,053.24 | 27,380.40 |
| Primary Prevention | 524,357.79 | 404,013.41 | 76,582.55 | 43,761.83 |
| Health Data | 916,718.91 | 748,888.03 | —0— | 167,830.88 |
| **Total** | 2,621,703.30 | 2,153,765.47 | 158,635.79 | 309,302.04 |
| **HEALTH SUPPORT SERVICES** | | | | |
| Public Health Area Support | 135,503.39 | 112,151.61 | 23,351.78 | —0— |
| Rural Health | 25,899.18 | —0— | 25,899.18 | —0— |
| Public Health Nursing | 412,197.84 | 363,229.20 | 48,968.64 | —0— |
| Public Health Area I | 105,163.34 | 103,374.14 | —0— | 1,789.20 |
| Public Health Area II | 158,153.02 | 158,153.02 | —0— | —0— |
| Public Health Area III | 101,372.04 | 101,372.04 | —0— | —0— |
| Public Health Area IV | 202,046.76 | 193,890.12 | —0— | 8,156.64 |
| Public Health Area V | 104,760.21 | 102,864.85 | 250.00 | 1,645.36 |
| Public Health Area VI | 41,159.23 | 38,900.41 | —0— | 2,258.82 |
| Rape Prevention | 49,245.28 | —0— | 49,245.28 | —0— |
| Rodent Control—Tuscaloosa | 85,081.44 | —0— | 85,081.44 | —0— |
| Rodent Control—Mobile | 82,969.00 | —0— | 82,969.00 | —0— |
| Clinical Laboratories | 4,151,978.62 | 3,386,211.82 | 668,094.91 | 97,671.89 |
| Baldwin County Home Health | 41,061.68 | —0— | 41,061.68 | —0— |
| Black Lung | 20,902.90 | —0— | 20,902.90 | —0— |
| **Total** | 5,717,493.93 | 4,560,147.21 | 1,045,824.81 | 111,521.91 |
| **PLANNING, DEVELOPMENT & REGULATION** | | | | |
| Emergency Medical Services | | | | |
| State Operation | 395,633.92 | 142,776.59 | 225,750.18 | 27,107.15 |
| District Implementation | 289,409.07 | —0— | 289,409.07 | —0— |
| **Total EMS** | 685,042.99 | 142,776.59 | 515,159.25 | 27,107.15 |
| Licensure & Certification | 1,157,873.26 | 185,869.24 | 250,226.01 | 721,778.01 |
| **Total** | 1,842,916.25 | 328,645.83 | 765,385.26 | 748,885.16 |
| **ENVIRONMENTAL HEALTH** | | | | |
| Administration | 143,038.86 | 133,495.40 | —0— | 9,543.46 |
| General Sanitation | 210,052.37 | 210,040.52 | —0— | 11.85 |
| Vector Control | 39,916.20 | 488.00 | 39,428.20 | —0— |
| Inspection | 797,713.80 | 763,829.45 | —0— | 33,884.35 |
| Radiological Health | 376,557.57 | 293,119.74 | 4,156.95 | 79,280.88 |
| Transfers to ADEM | 147,307.00 | 136,334.85 | 10,947.83 | 24.32 |
| **Total** | 1,714,585.80 | 1,537,307.96 | 54,532.98 | 122,744.86 |
| **PREVENTIVE HEALTH SERVICES** | | | | |
| Administration | 71,766.23 | 71,766.23 | —0— | —0— |
| Cancer Detection | 300,134.47 | 300,134.47 | —0— | —0— |
| Epidemiology | 151,507.52 | 151,507.52 | —0— | —0— |
| Hypertension | 372,308.03 | 46,359.84 | 325,948.19 | —0— |
| Immunization | 682,679.56 | 326,775.24 | 355,904.32 | —0— |
| Tuberculosis Control | 1,791,190.74 | 1,773,912.41 | —0— | 17,278.33 |
| Hospitalization of T.B. Patients | 526,770.00 | 283,980.00 | —0— | 242,790.00 |
| Venereal Disease Control | 1,121,962.51 | 361,429.55 | 749,336.46 | 11,196.50 |
| **Total** | 5,018,319.06 | 3,315,865.26 | 1,431,188.97 | 271,264.83 |

## TABLE 1-2 (continued)
## SUMMARY OF PROGRAM DISBURSEMENTS BY GENERAL SOURCE OF FUNDS
## FISCAL YEAR 1983

| Program | All Funds | State & Revenue Funds | Federal Funds | Local & Other Funds |
|---|---|---|---|---|
| **FAMILY HEALTH SUPPORT** | | | | |
| Family Planning | 4,131,468.08 | —0— | 4,131,468.08 | —0— |
| Women, Infants, & Children Food | 22,008,748.71 | —0— | 22,008,748.71 | —0— |
| Maternal & Child Health | | | | |
| Block Grant—Transfer to Cripple Children | 3,259,732.00 | —0— | 3,259,732.00 | —0— |
| Administration | 447,895.61 | —0— | 447,895.61 | —0— |
| MCH Special Project Contracts | 2,694,801.20 | 660,698.34 | 2,094,102.86 | —0— |
| MCH Area Support | 2,053,857.89 | —0— | 2,053,857.89 | —0— |
| Mental Retardation | 223,490.48 | —0— | 223,490.48 | —0— |
| Improved Child Health | 255,960.19 | —0— | 255,960.19 | —0— |
| SIDS | 26,074.38 | —0— | 26,074.38 | —0— |
| **Total MCH** | 8,961,811.75 | 600,698.34 | 8,361,113.41 | —0— |
| Dental Health | 286,504.06 | 234,151.80 | 7,713.75 | 44,638.51 |
| Dental Flouridation | 83,649.43 | —0— | 83,649.43 | —0— |
| **Total** | 35,472,182.03 | 834,850.14 | 34,592,693.38 | 44,638.51 |
| **REGULATORY BOARDS—Hearing Aid** | 3,408.76 | 3,408.76 | —0— | —0— |
| **LOCAL HEALTH UNITS** | 37,850,947.40 | 6,773,179.93 | —0— | 31,077,767.47 |
| **GRAND TOTAL** | 93,392,999.08 | 21,123,252.18 | 38,216,571.40 | 34,053,175.50* |

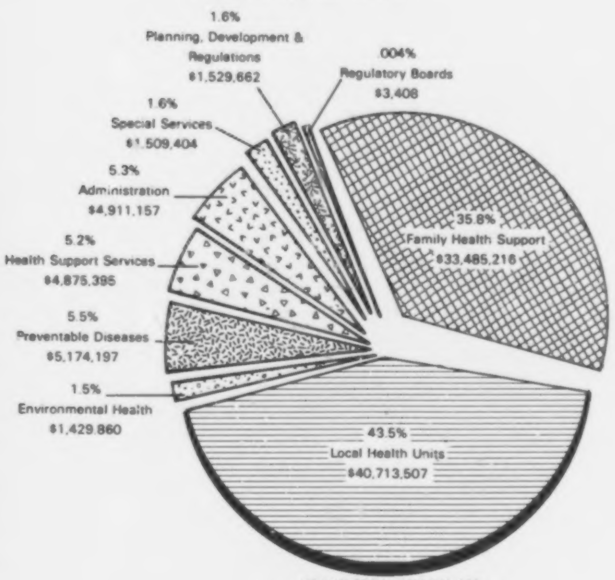
*Includes $18,994,242.02 in funds collected and expended locally.

## TABLE 1-3
## SUMMARY OF DISBURSEMENTS BY OBJECT
## FISCAL YEAR 1983

| Object | Expended |
|---|---|
| Salaries | 16,987,545.47 |
| Fringe Benefits | 3,361,798.94 |
| Travel—In-State | 973,516.12 |
| Travel—Out-of-State | 29,070.83 |
| Repairs and Maintenance | 99,128.66 |
| Rentals and Leases | 490,020.50 |
| Utilities and Communication | 1,113,841.75 |
| Professional Services | 1,633,721.25 |
| Supplies and Materials | 943,964.87 |
| Drugs and Medical Supplies | 1,201,115.75 |
| Food—Women, Infants and Children | 17,381,931.02 |
| Indirect Cost | 1,353,132.63 |
| Training | 8,105.76 |
| Transportation & Equipment Operations | 17,859.23 |
| Grants and Contracts | 5,981,701.00 |
| Capital Outlay | 522.00 |
| Other Equipment Purchases | 303,962.03 |
| Non-Expenditure Disbursements | 3,661,113.87 |
| County Health Departments | 37,850,947.70 |
| **Total** | 93,392,999.38 |

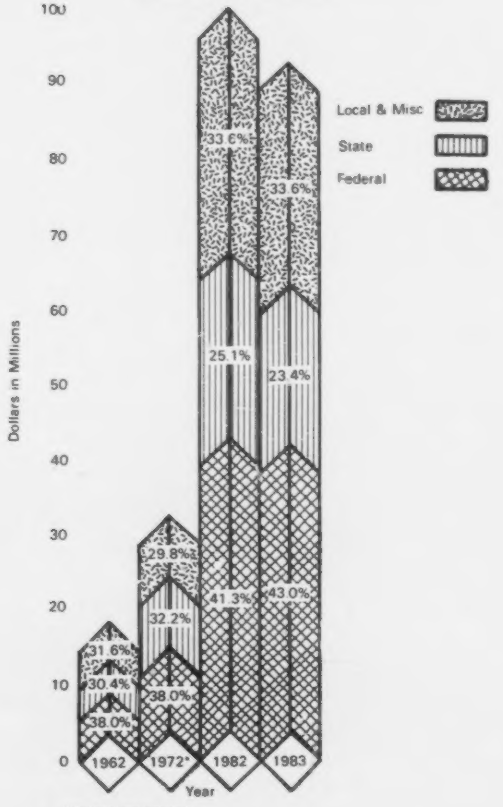
*Accountant Sue Hannon balances Health Department accounts with capitol records.*

**GRAPH 1-1**
**EXPENDITURE OF FUNDS**
**FISCAL YEAR 1983**



GRAND TOTAL $93,631,806

**GRAPH 1-2**
**PUBLIC HEALTH FUNDS BY SOURCE**
**SELECTED YEARS**



*Medicaid not included.

## Internal Audit Division

The Internal Audit Division developed and implemented the "Uniform Accounting and Periodic Reporting System for County Health Departments." Effective October 1, 1983, this system is the procedure which county health departments are to use for record keeping of funds collected and expended at the local level. It does not apply to the Jefferson County Department of Health, the Mobile County Health Department or county health departments which are included in a public health district.

Prior to implementation of the system, the division conducted training sessions in each public health area to familiarize key personnel with the new system.

All contracts and agreements which involve the Health Department have to be monitored. During 1983 the Finance, Legal and Internal Audit divisions reviewed and approved 211 contracts and agreements before submitting them to the State Health Officer for review prior to final execution.

The director of the Internal Audit Division represented the State Health Officer in audit meetings with the State Examiners of Public Accounts and with auditors from the federal government and private firms. Audit findings were discussed with the directors of certain administrations, bureaus and divisions of the State Health Department.

The division evaluated the audit impact of certain legislative actions and made recommendations pertaining to those actions.

This division was assigned the additional responsibility of auditing the 50 county health departments in which the "Uniform Accounting and Periodic Reporting System for County Health Departments" was implemented. On December 12, 1983, another auditor was added to the staff to assist in meeting the auditing responsibilities of this division.

## Legal Division

The Legal Division of the State Department of Public Health was staffed in 1983 by two attorneys, a legal intern and one secretary.

In their capacity as assistant attorneys general, division attorneys served on the opinions committee of the Office of Attorney General, providing review, comments and recommendations; wrote and reviewed proposed rules; researched and wrote opinions; represented the Attorney General in providing legal assistance and counsel to various state boards; and consulted and coordinated with the Attorney General on public health matters.

The Legal Division, as the office of primary responsibility for meeting the requirements of the Alabama Administrative Procedure Act, maintained the official file of the State Board of Health rules and functioned as the reproduction and distribution center, serving the public need. The division was responsible for filing notices of intended actions regarding State Board of Health rules for publication in the *Alabama Administrative Monthly*.

During 1983 Legal Division attorneys represented the State Board of Health, county boards of health, the Health Department and its personnel in over 30 actions before state and federal courts and administrative bodies. Cases dealt with employee liability, inspections, vital statistics, rabies, civil rights and various tort actions.

Division attorneys served as hearing officers for Alabama Water Improvement Commission hearings; Women, Infants and Children (WIC) Program hearings; public hearings on State Board of Health rules; hospital and nursing home licensure revocation hearings; Board of Adjustment hearings and personnel adminstrative hearings.

The Legal Division functioned as in-house counsel to all offices of the State Health Department and to the majority of the county health departments. Attorneys reviewed for legal sufficiency all contracts, leases and other instruments as well as correspondence. Legal review and rewrite was provided on new and existing State Board of Health rules adopted or amended during the year. Staff counsel furnished legal advice on a day-to-day basis to staff members of the state and county health departments involving interpretations of statutes and rules and appropriate legal and administrative actions to be pursued in their enforcement.

*Attorney John Wible determines the legal basis for health regulations.*

## Division of Personnel and Training Services

During 1983 the Personnel Division was very active in maintaining proper classification of positions within the department following the statewide classification and pay study of 1982. During this time 67 positions were reallocated to different classifications based on job studies or task analyses. Also 90 new positions were established to meet departmental needs due to organizational changes designed to improve program administration. Some of these new positions were filled with existing staff, resulting in a number of vacant positions being abolished.

*Rosanna Smith receives, checks and files death certificates.*

At the end of 1983, of the 1,862 Health Department employees, 612 (33 percent) were state level employees; and 1,250 (67 percent) were county level employees. These figures do not include Jefferson and Mobile county employees since they are under separate merit systems.

There were a total of 299 gains, consisting of 175 original probationary, six provisional, 49 temporary, 17 reemployment, one emergency, 27 transfers from other agencies and 24 unskilled appointments. In addition there were 23 promotional appointments during this period. Employee separations numbered 271 and included 143 resignations, four deaths, 54 expirations of appointment (provisional, temporary, laborer), 18 layoffs, seven dismissals and 20 transfers from the department. Also 25 employees retired during the year.

The combined recruiting efforts of the Health Department and the State Personnel resulted in 355 nurses being placed on state employment registers. Other recruitment figures included 157 environmentalists, 50 microbiologists, 79 nutritionists, seven public health physicians, five dentists, 79 health services administrators, 17 solid waste officers, 664 health services aides and one nurse midwife. Some of these figures include promotional applications.

For fiscal year 1983, the Governor imposed a 15 percent proration of agency budgets, resulting in a freeze on raises in the department during that period. On September 28, 1983, the Personnel Division administratively processed one-step raises for the 1,397 employees who had not received merit raises since November 1, 1982, due to the proration. In additon 27 promotional and 122 probationary pay increases that had been deferred due to proration were granted.

In the area of affirmative action, minorities made up 22.5 percent of the work force. The Health Department compares favorably with the Alabama labor market of 22 percent of those available in job classifications used by the department being minorities. During this period 24.5

percent of the original probationary appointments were to blacks, and the department's upward mobility efforts are reflected in an improved percentage of minorities in clerical, professional and official or administrative job categories. The number of minorities earning $20,000 or more annually in the department increased from 23 to 38 during the year.

The division continued its minority sensitive recruiting efforts by participating in career day programs at predominantly black colleges. Currently efforts are being made through officials at Alabama State University and Tuskegee Institute to attract additional minorities in professional job categories such as environmentalists and microbiologists.

The Personnel Division continued to provide administrative support and guidance in the principles of progressive discipline in resolving complaints and grievances involving employees. During calendar year 1983, there were 82 complaints filed. Of these, 67 (81.7 percent) were at the county level and 15 (18.3 percent) were at the state level. Of the 82 complaints, 71 were by supervisors against employees as follows: 40 for performance, nine for falsification of records, 10 for leave abuse, six for integrity, three for insubordination, one for racial harassment, one for patient abuse and one for a misdemeanor.

Through the counseling provisions of progressive discipline, 41 complaints against employees were administratively corrected or resolved. Where disciplinary action was taken, employess were provided due process in the following personnel actions: seven terminations, seven suspensions, five resignations in lieu of termination, five resignations after counseling, two retirements in lieu of termination and one official reprimand.

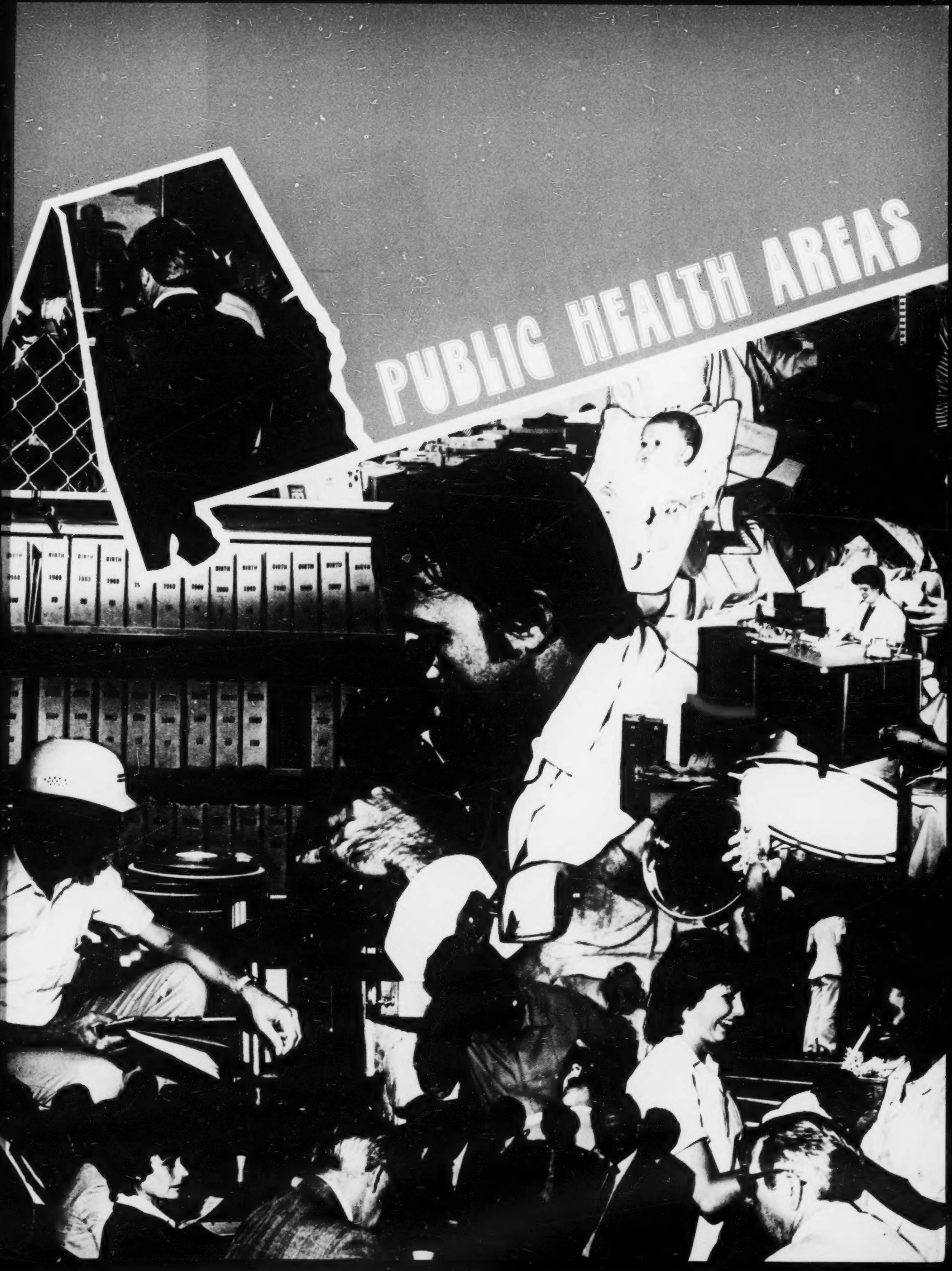
The Personnel Division also provided administrative support in processing three Equal Employment Opportunity Commission complaints during 1983. The commission issued a no fault finding on one; the second complaint was withdrawn by the employee following administrative counseling; and the third is still pending. The only lawsuit filed by an employee during the year was for unemployment compensation, and the court ruled the employee disqualified.

*School lunchroom personnel receive instructions on sanitation from Joe Fail.*

There was a significant decrease in the number of formal complaints filed by employees. This is due in part to a continuing effort for more effective communication with employees through the counseling provisions of the department's policy of progressive discipline.

A top priority of the Personnel Division each year is to provide training programs for department employees. Training projects set for 1982 were canceled as a result of budget proration; however in September 1983 three area planning workshops were conducted by the Personnel Director with consultants from Auburn University at Montgomery and a cross section of Health Department management employees to develop a basic management training program for administrators. This training program will begin in fiscal year 1984 and will be designed to train health services administrators in such areas as decision making, planning, forecasting and goal setting, ethics and professionalism, and human relations. It is anticipated that all program administrators and health officers will have an opportunity to attend these courses.

# PUBLIC HEALTH AREAS



# PUBLIC HEALTH AREAS

## PUBLIC HEALTH AREA I

Public Health Area I consists of twelve northern counties of Alabama. An assistant state health officer provides medical supervision and general administration; thus there is a degree of unity despite the diversity within the area. Since county health departments are autonomous, they have much latitude in activities and services. Some exercise their independence more than others. Size, population, facilities, socioeconomics and administration are influencing elements. Administratively the twelve counties are organized into one four-county district, one three-county district, one two-county district, one large urban health department and two single rural health departments.

The Northwest Alabama Regional Health Department is in a transitional period in many of its programs. The changes being made are designed for the department to provide better public health services to the citizens of this district and to be an asset to the medical community. Overall the medical community in the district is becoming more aware of the role of the health department and the assistance it can provide. Private physicians are encouraged to call the Health Department about problems and for consultation, and they are calling.

Although Northwest Alabama has been one of the most financially strained areas of the state, the Northwest Alabama Regional Health Department secured moderate increases in 1984 budget appropriations from all three counties and the six municipalities which it serves. This is essentially the first major increase in local funding since revenue sharing became a funding source.

In March 1983 construction began on an 1,800 square foot addition to the Lauderdale County Health Department. This doubled the floor space of that building and provided a much needed clinical area consisting of a waiting room, reception area, record room, two laboratory work rooms, six examination rooms, two office interview rooms, and two restrooms. Concurrent renovation of the existing structure was further improvement. The work was completed in October.

In January 1983 the district expanded clinic hours in the Franklin County satellite clinic in Red Bay from two clinic days to three clinic days per month. This additional day helps meet the increased demand for services to clients in this area of Franklin County.

Lack of adequate funding has been the bane of many health activities. But Cullman County Health Department has secured a grant from the Appalachian Regional Commission whereby it can construct a new building. The current building has deteriorated, has unreliable heating, is inaccessible to the handicapped and is extremely crowded. Lawrence County needs a new building but will only get some repairs. Limestone County health employees chose a four day work week rather than further lay off of personnel. Winston County has struggled with inadequate funding for two years. Home health has been a positive financial force in Marshall County since other funds are lacking. A series of good articles in a local newspaper brought to the attention of the public the essential services provided by public health. In turn citizens encouraged governing groups to provide more nearly adequate funding.

**Environmental Health Services**—During 1983 the Environmental Health Program of PHA I has continued to develop and refine ways for improving the implementation and delivery of programs. The effort and quality of work of the environmental staff have been commendable. Concentration was on productivity, on-site sewage disposal and food sanitation.

With the emphasis on productivity and accountability, the environmental staff are using a daily report form on which each individual indicates how he spends the working time each day. Environmentalists are wearing identification badges to identify themselves to the public and thus facilitate their acceptance as inspectors. Improving the quality of the on-site sewage program has been emphasized this past year. Since the area counties except Lawrence and Cullman have all necessary inspection equipment, environmentalists have attended a training program emphasizing site evaluation, inspection techniques and the requirements of the regulations.

Ten subdivisions within the area have been surveyed to determine the percentage and the cause of failure of the on-site sewage system. Failure has ranged from 25 percent to more than 80 percent. Illegal systems being installed without the department inspecting them, applicaitons being submitted with inaccurate percolation rates and systems being approved by the department without proper inspection were determined to be reasons for failures which could have been prevented. Proposing new legislation was aimed at correcting the first two problems. Improving knowledge and skills of county environmentalists should produce better inspections.

City and county officials in Lauderdale and Jackson counties have been working with public health environmentalists to find solutions to the failing septic tanks in their subdivisions. Of the 171 lots surveyed in the Goosepond Acres Subdivision of Jackson County, an 81 percent failure rate was discovered. City officials in Scottsboro used the information in applying for funds to complete a public sewer project.

It was discovered that nine illegal subdivisions were being developed in Franklin County around the Cedar Creek Reservoir. The evidence was forwarded to the Legal Division of the State Health Department for action.

This past autumn the state Bureau of General Sanitation began auditing on-site sewage programs in PHA I. Four counties had been completed, but the reports had not been released.

All manufacturers of septic tanks were inspected during the year, and permits were issued.

During 1983 many improvements in the food inspection programs of PHA I were made because of the efforts and cooperation of the staff. Consistency of ratings by inspectors and corrections of violations are being sought. The state Bureau of Inspection is working with the area staff to have every food inspector certified by 1985 to the end that greater uniformity of scoring can be expected regardless of who inspects a food service establishment. In PHA I, 96 percent of the required inspections were made in 1983. Emphasis is being placed on assuring that violations are corrected. Documentation shows that violations are being found, action is being taken to abate them and results are being achieved. Prior to 1981 violations were marked on inspection reports, but no corrective action was taken. Consequently the same violations were detected repeatedly. Inspectors are now using legal notices as a stimulus for correcting violations and are getting 100 percent of them corrected within seven days. That is success! In 1980 no legal notices were issued. In 1981, 35 were issued; in 1982 the number jumped to 1,211. By 1983 legal notices issued escalated to 2,893. Since each notice represented one to five violations, critical sanitation violations corrected could easily total more than 6,000 for PHA I in 1983.

In the Tri-County District Health Services, excessive bacterial and coliform counts in soft serve ice milk continues to be a problem in many establishments. Because of prompt notification of vendors, continuing education, Cessation of Operation notices and appropriate follow-up, unsatisfactory samples appear less frequent than in the previous year. Probably it will take at least another year to achieve satisfactory compliance.

The effect of not having food inspections and education programs was demonstrated in 1983 when Limestone County was without a full-time environmentalist for nine months. The checking of commercial food handling establishments which had not been inspected for six to nine months disclosed poor scores among many. In fact if health permits had been issued on the basis of the one inspection, more than two-thirds of the establishments would not have qualified.

In its Environmental Health Program, the Northwest Alabama Regional Health Department adopted a program-oriented approach rather than each county conducting its own activities in every aspect of the environmental program. Thereby it could somewhat compensate for inadequate staff because of being unable to replace the Lauderdale County environmentalist who resigned. With this approach the most pressing environmental work has continued. A supervisor with two environmentalists in the food program and a supervisor with one environmentalist in the community sanitation program were unable to perform the duties of a full staff, but the approach has been successful enough to warrant continuing program-oriented environmental work if other employees are hired.

Morgan County installed and began using a two-way radio system which has improved communications and delivery of services while reducing travel. Madison County has improved its radio system, and Northwest Region has begun better utilization of its system. The possibility of an areawide radio communiction network is being explored.

**Personal Health Services**—During 1983 the Public Health Area I Maternal and Child Health and Family Planning programs were reorganized using the state level Family Health Administration format. Cancer Detection; Women, Infants and Children Supplemental Food; EPSDT (Early and Periodic Screening, Diagnosis, and Treatment); Maternal and Child Health; and Family Planning programs combined to form the Area I Family Health Administration.

Family planning services are available in each county of PHA I. Franklin, Madison, Marshall and Winston counties have satellite clinics; therefore 16 sites provide family planning services in the area. Clinics are held at least once each week in each county. Services include physical examinations and assessments, contraceptive supplies, counseling, and referral for medical problems.

In fiscal year 1983 there were 11,871 patients served in 27,817 total visits to area family planning clinics. The number of patients declined this year. Reduced clinic time and decreased availability of family planning services contributed to less client utilization. Another factor was the decrease in teenage patients resulting from the widely publicized proposed regulations whereby parents would be notified if teenagers sought family planning services. The regulation was never implemented. The increased number of clinics since October are allowing more patients to be served.

With the opening of a maternity clinic in conjunction with the Town Creek Rural Health Clinic in Lawrence County in December 1983, maternity services are now available in nine counties of Public Health Area I. No prenatal services are available in the health departments of Colbert, Marion and Marshall counties. In Lauderdale and Morgan counties, maternity patients are screened and referred to private physicians for prenatal care. In the other seven counties maternity clinics are held at least once each week; however Limestone County had to reduce staff hours. Franklin and Winston counties have satellite clinics as well as those in their Health Department facilities. In Madison County maternity care is provided through a contract with the Ambulatory Care Center at the University of Alabama in Huntsville. This is the largest maternity clinic in Area I.

The 1,444 Area I maternity patients were served in a total of 8,463 visits. With the depressed economy—approximately 20 percent unemployment in some parts of Area I—requests for admission to Health Department maternity clinics have increased.

With a grant from the North Alabama Perinatal Advisory Committee, the Northwest Alabama Regional Health Department was able to secure a full-time nurse practitioner. She staffs the maternity clinic in Franklin County as well as works with maternity patients in other counties if needed.

During 1983 an indigent high risk prenatal care program was implemented in PHA I with the Jobs Bill funds. Contracts were signed with Eliza Coffee Memorial Hospital in Florence and Decatur General Hospital in Decatur. Both contracts were renewed for fiscal year 1984 for $20,000 each. The hospitals are reimbursed at the Medicaid per diem rate for up to ten days to care for hospitalized indigent high risk maternity patients and their infants. The obstetrician also received $250 for delivery and up to $50 for routine pediatric care in the hospital.

Well child clinics in Marion and Madison counties were started in November 1983 and January 1984 respectively, making these services available in all counties of Public Health Area I. Marion County has shown great initiative in starting the clinic since no physicians within the county deliver babies. The hiring of an assistant health officer in Madison County permits the addition of well child clinics at two sites.

Jackson, Lawrence, Limestone and Marion counties hold clinics twice each month. Clinics are available once a week in the other eight counties. The 2,729 patients served represent about 23 percent of the estimated need.

Since July 1982, the health officer of the Northwest Alabama Regional Health Department has held pediatric referral clinics for indigent clients. Therefore these children have had access to pediatric care for certain medical problems and referral to private physicians for long-term follow-up if needed. Three clinics, one in each county, are held each week.

Cancer detection clinics are available in seven counties of PHA I. Franklin, Marshall and Winston counties also have satellite clinics, making ten clinic sites for the area. Marshall County has three clinics a month, and the other six counties—Colbert, Franklin, Jackson, Lauderdale, Marion and Winston—have clinics twice a month. During 1983, 2,360 patients were served in these clinics. Marion County held special clinics to accommodate working women. Since the response was excellent, the plan will be assessed for use in other counties.

The Women, Infants and Children Supplemental Food Program is available in each Health Department except in Madison County. In Madison County WIC services are provided through contract at the Ambulatory Care Center at the University of Alabama in Huntsville. Contracted services provide WIC at the Southern Rural Health Consortium in Red Bay in addition to the program at the Franklin County Health Department in Russellville.

During fiscal year 1983 participation in the Area I WIC Program increased 21 percent, an unexpected growth rate. At the end of October the area case load was 8,774 people. Efforts are being made to increase participation more. It is estimated that the program is serving between 42 and 43 percent of those in need.

Nutrition education services have improved and expanded. In individual counseling sessions and classes, participants receive nutrition information.

Program objectives for 1983 were based on identified needs. Participant behavior objectives included increasing the number of mothers who breast-feed their infants, decreasing smoking and delaying the introduction of solid foods. Data show that breast-feeding increased from 3.3 percent to 9.3 percent of the total postpartum case load. The incidence of smoking remained at about 46 percent, and the percentage of early solid food introduction remained the same.

Staff changes have been made to meet program needs better. Additional staffing is under consideration based on the new projections of participants and the allocation of additional WIC funds.

Another nutritionist was hired in the Northwest district to provide a full-time nutritionist for each of the three counties. Also in this district in WIC as well as in other programs, all employees are being cross-trained so that they can have the opportunity to work in all programs. The training sessions are expected to take six to twelve months.

The nursing staffs in Area I have shown determination and success in improving their nursing skills and updating education through local in-service programs and staff development programs. Continuing education is a requirement for all professional staff at the Northwest Alabama Regional Health Department. Its Continuing Education Program has been approved for continuing education units by the Alabama State Nurses Association. One nurse entered the Emory University Nurse Practitioner Training Program to become an obstetrics-gynecology nurse practitioner. Madison County has assigned a nurse to in-service and another to community health education.

The Northwest Alabama Regional Health Department had previously had a dental clinic which was supported solely by Medicaid funds. A new dental director has been employed, and he has embarked on a program to expand the funding sources. The dental program has agreed to provide care for county prisoners, Lauderdale County school children (sponsored by the Kiwanis Club), and State Crippled Children clients on a reimbursement scale similar to Medicaid. The dental program is expected to expand further under the new director.

Overall, schools in PHA I showed some improvement in compliance with the school immunization law during 1983. Reports of the immunization status of students were obtained from all 373 public and private schools of the area. Reports were requested from kindergarten through twelfth grade for more effectively maintaining immunization levels in the entire school population. Complete reporting is needed because high schools and junior high schools have not always required school immunization law compliance.

Students who transfer from other schools, particularly from outside Alabama, need to present proper immunization certificates before they are enrolled regardless of their ages or grades. The current national problem of measles and rubella in the college population has demonstrated that older students as well as those entering school need to be immunized against these diseases. Table 2-1 shows that the percentage of compliance is high for Area I.

Public Health Area I as well as other areas participated in assessing the immunization requirements of colleges and universities.

During 1983 a new system for distributing vaccines was initiated in Area I. With this system each Health Department can maintain a three month supply of vaccines, thus drastically cutting the time spent in delivering them. Also vaccine accountability has improved, and wastage has almost been eliminated.

The only vaccine preventable disease reported during 1983 in Area I was a confirmed case of rubella in an English citizen temporarily residing in Huntsville. Outbreak control measures prevented the spread of the disease.

Tuberculosis continues to be a public health problem in PHA I. To ascertain that patients are receiving the recommended drugs, treatment and follow-up, each county Health Department was reviewed. The major problem seems to be with local physicians prescribing incorrect drug regimens and dosages.

During 1983 the number of patients on supervised therapy increased greatly. Directly administered therapy assured that the noncompliant patient got his medicine; however the additional home visits increased mileage and drove up the costs. Many outpatient, regular X-ray, sputa and drug clinics were combined to cut costs. To reduce expenses further some clinics were combined with those in adjoining counties.

The health officer in the Northwest Alabama Regional Health Department continued to see all childhood tuberculosis cases, contacts and reactors in the pediatric clinic. She also conducted some adult outpatient clinics.

For the entire year early syphilis increased and gonorrhea decreased slightly for PHA I. The number of primary and secondary syphilis cases increased by 54 percent over the number reported in 1982 while early latent syphilis increased 29 percent. No cases of congenital syphilis were reported in 1983. The Athens-Limestone County area has shown the greatest increase. Since October 1982 eleven cases of early syphilis can be directly traced to one small community.

Reported gonorrhea cases were 15 percent fewer than in 1982; however gonococcal pelvic inflammatory disease jumped 92 percent. Continued increase is expected as the GPID program expands.

Infectious hepatitis in a day care center in Albertville was a problem at the end of the year. Physicians did not do definitive blood work for diagnosis and did not stress the importance of immune globulin prophylaxis for contacts.

In January 1983 the Northwest Alabama Regional Health Department established an epidemiology team for the three county district. To educate the team, an ongoing program consisting of lectures and reviews of recent medical literature is being conducted in the district. More reports from hospitals and private physicians are being received. Education and counseling regarding prevention and prophylaxis of communicable diseases are appropriate.

### TABLE 2-1
### PHA-I COUNTY SCHOOL SUMMARY RESULTS KINDERGARTEN THROUGH TWELFTH GRADE
### 1983

| | K & 1ST GRADE | | | | | K THROUGH 12TH GRADE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| County | % IMM-50 | % Temp. | % Med. | % Rel. | % No Cert. | % IMM-50 | % Temp. | % Med. | % Rel. | % No Cert. |
| Colbert | 97.05 | 2.49 | .06 | .06 | .35 | 98.87 | .65 | .09 | .07 | .32 |
| Franklin | 99.87 | 0 | .13 | 0 | 0 | 99.35 | .33 | .13 | .04 | .16 |
| Lauderdale | 98.07 | 1.25 | .05 | .10 | .53 | 99.09 | .22 | .05 | .07 | .57 |
| NWARHD Average | 98.33 | 1.25 | .08 | .05 | .34 | 99.10 | .40 | .09 | .06.35 | |
| Cullman | 96.38 | 1.22 | .32 | 0 | 2.08 | 96.40 | 1.04 | .55 | .10 | 1.90 |
| Lawrence | 98.63 | .64 | 0 | .18 | .55 | 98.48 | 1.18 | .06 | .05 | .22 |
| Limestone | 96.39 | 1.91 | 1.45 | .26 | 0 | 98.93 | .77 | .23 | .08 | 0 |
| Morgan | 99.38 | .53 | 0 | .09 | 0 | N/A | N/A | N/A | N/A | N/A |
| Tri-Co. Average | 97.70 | 1.07 | .44 | .13 | .66 | 97.94 | .99 | .28 | .08 | .71 |
| Madison | 98.16 | 1.43 | .15 | .06 | .20 | 98.65 | .72 | .21 | .09 | .33 |
| Jackson | 98.32 | .60 | .27 | .49 | .33 | 98.51 | .40 | .10 | .82 | .16 |
| Marion | 98.89 | .86 | 0 | .12 | .12 | 97.31 | .46 | .26 | .13 | 1.84 |
| Marshall | 98.52 | .40 | 0 | .40 | .67 | 97.95 | .04 | .06 | .34 | 1.61 |
| Winston | 98.29 | .26 | .13 | 0 | 1.32 | 97.38 | .47 | .24 | .12 | 1.79 |
| PHA-I Average | 98.16 | .97 | .21 | .15 | .52 | 98.27 | .57 | .18 | .17 | .81 |

NOTE: IMM-50—Immunization Certificate
Temp.—Temporary Exemption
Med.—Medical Exemption
Rel.—Religious Exemption
No. Cert.—No Certificate

## PUBLIC HEALTH AREA II

Completion of an addition to the Tuscaloosa County Health Center is scheduled for January 30, 1984. District staff, vital statistics for Tuscaloosa and environmental staff will move into that area, freeing more space for clinical services in the older building. The project cost approximately $300,000 and was bid in December 1982. The laboratory area has also been expanded so that all laboratory work except sexually transmitted diseases can be done in a central area.

Service delivery in Public Health Area II (Bibb, Fayette, Greene, Hale, Lamar, Pickens and Tuscaloosa counties) continued in 1983 at projected levels despite some reduction in funding. All county health departments are now operating with a centralized medical record system which allows a more effective and efficient means of serving the public. Two counties were chosen to participate in pilot projects. Tuscaloosa County began a Maternal and Child Health/Family Planning Pilot Project for collection of fees. Hale County began the Unified Medical Record Pilot Project.

**Environmental Health Services**—During 1983 emphasis in environmental health has been placed on standardization of all environmentalists in interpretation, application and enforcement of environmental health regulations.

Food inspection is a major aspect of the environmental health staff's responsibility, and the focus in 1983 has been on critical areas such as food handling and protection. The frequency of inspection was changed from monthly to quarterly to allow for complete inspection on a less frequent basis.

At the end of September 1983, the Urban Rat Control Project ended due to depleted block grant funding. In implementing the project 28,186 premises were inspected; 3,948 health education visits were made; 3,780 environmental deficiences were corrected; and 138 rat signs were removed.

The Environmental Division of the West Alabama District Health Department initiated an encephalitis monitoring program in September 1983. The program involved the trapping and bleeding of pigeons to find the number of sero-reactors to St. Louis encephalitis and Eastern equine encephalitis. Mosquito trapping was conducted to determine the number of mosquitoes of the paticular species that are known to carry the viruses from bird to man.

Of the 21 pigeons trapped in downtown Tuscaloosa in September, one was positive for EEE; and one was found to be positive for SLE and EEE in a report received from the Centers for Disease Control in Atlanta. This prompted the trapping of mosquitoes in four locations in downtown Tuscaloosa. Of the fourteen mosquitoes trapped in November, three were identified as *Culex restuans* and nine were identified as *Culex quinquefasciatus*. Both species are vectors of encephalitis.

Although the results are not based on a statistically representative sample of the arboviral population of the city, it does indicate a need for continued surveillance in the spring of 1984.

In the seven county area 2,887 food inspections were reported; 804 lunchrooms were inspected; 148 day care inspections were made; 771 frozen dessert samples were collected; 772 septic tanks were approved; 26 subdivisons were approved; seven swimming pools were inspected; 190 animal bites were investigated; 119 motel and hotel inspections were made; inspections at jails totaled 67; and 53 private dwelling inspections were reported.

Environmental health services also reported 6,209 samples sent to the State Health Department laboratory for analysis. These included private and public water samples and rabies detection samples. A report by county is available in Table 2-2.

TABLE 2-2
SELECTED ENVIRONMENTAL ACTIVITIES FOR PHA II
FISCAL YEAR 1983

| | Bibb County | Fayette County | Greene County | Hale County | Lamar County | Pickens County | Tuscaloosa County | Total |
|---|---|---|---|---|---|---|---|---|
| Food Inspections | 134 | 273 | 206 | 174 | 312 | 301 | 1,080 | 2,887 |
| Lunchroom Inspections | 58 | 50 | 63 | 96 | 50 | 81 | 406 | 804 |
| Day Care Inspections | 11 | 3 | 2 | 4 | 1 | 48 | 79 | 148 |
| Frozen Dessert Samples Collected | 50 | 77 | 34 | 18 | 22 | 51 | 465 | 717 |
| San 3's Approved | 48 | 46 | 22 | 13 | 63 | 103 | 450 | 745 |
| Septic Tanks Approved | 53 | 42 | 11 | 9 | 47 | 64 | 546 | 772 |
| Subdivisions Approved | 0 | 3 | 0 | 1 | 1 | 0 | 21 | 26 |
| Swimming Pool Inspections | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 7 |
| Animal Bite Investigations | 10 | 9 | 3 | 10 | 19 | 68 | 71 | 190 |
| Hotel/Motel Inspections | 2 | 8 | 6 | 24 | 8 | 16 | 55 | 119 |
| Jail Inspections | 5 | 5 | 2 | 24 | 8 | 16 | 7 | 67 |
| Private Dwelling Inspections | 0 | 0 | 0 | 0 | 0 | 1 | 52 | 53 |
| TOTAL | 373 | 516 | 349 | 373 | 531 | 749 | 3,237 | 6,128 |

**Personal Health Services**—In the Home Health Program, statistics for 1983 indicate 14,283 visits for a 19 percent increase over 1982. Interestingly, 65 percent were new users of this service which provides skilled nursing care for homebound patients. Generalized nursing staff continued to assume responsibility for the communicable disease aspect of public health, excluding sexually transmitted diseases and tuberculosis, and have followed epidemiologically all diseases reported when further investigation was indicated. There were 175 investigations during fiscal year 1983.

In the area of dental health, efforts were directed primarily toward dental health education and weekly fluoride mouthrinse for elementary school children and toward clinical dental treatment. At the Tuscaloosa center, dental treatment was provided to 4,025 children from ages 2 to 21. Services included routine preventive and operative procedures such as examination, cleanings, X-rays, fluoride treatments, fillings, root canals, extractions and space maintenance. Dental health education expanded to include 14,271 students; and 14,159 students participated in the sodium fluoride mouthrinse program, an increase of 5,534 over the previous year.

A special perinatal project enabled the Health Department to provide 2,154 nutrition education contacts in 1983, along with 167 special sessions with high risk infants. Approximately 300 home visits to high risk infants were also made through this program. Additionally a public health nurse educator made postdelivery contacts with 461 women who had been prenatal patients at the Health Department.

Emphasis on healthy babies was further enhanced by the WIC nutrition program which had 4,437 participants in 1983. This program is designed for low income pregnant women, nursing mothers, infants and children up to 5 years of age who are at nutritional risks. Food packages averaging $26.63 monthly per participant were made available through food vouchers.

Syphilis as well as gonococcal pelvic inflammatory disease increased in Public Health Area II this year. With syphilis increasing statewide for several years, Tuscaloosa and PHA II could not escape the rise in morbidity. Reduced staff is a contributing factor in the 16 percent increase in GPID.

Tuberculosis appears to be leveling off nationwide; however Area II experienced a 7.7 percent increase with 42 new cases.

In other Health Department clinics, visits reflect the year's activities: cancer detection (four counties), 997; sexually transmitted diseases, 3,394; tuberculosis, 12,617; immunizations, 20,673; family planning, 14,307; maternity, 6,102; well child, 3,558; and Medicaid screening, 2,136. Table 2-3 gives the number of visits by county.

**Vital Events**—Vital record statistics for the area include: births in Bibb County, 30; Fayette County, 227; Greene County, 222; Hale County, 139; Lamar County, 0; Pickens County, 116; and Tuscaloosa County, 2,299. Deaths in Bibb County, 91; Fayette County, 146; Greene County, 94; Hale County, 99; Lamar County, 118; Pickens County, 182; and Tuscaloosa County, 1,390.

### TABLE 2-3
### PHA II CLINIC ENCOUNTERS
### BY COUNTY
### FISCAL YEAR 1983

| Clinic | Bibb County | Fayette County | Greene County | Hale County | Lamar County | Pickens County | Tuscaloosa County | Total |
|---|---|---|---|---|---|---|---|---|
| Cancer | 190 | 254 | 0 | 299 | 254 | 0 | 0 | 997 |
| STD | 10 | 23 | 11 | 25 | 54 | 65 | 3,753 | 3,941 |
| TB | 346 | 658 | 749 | 576 | 343 | 1,006 | 8,939 | 12,617 |
| Immunization | 1,540 | 2,130 | 1,337 | 1,923 | 2,224 | 2,774 | 8,745 | 20,673 |
| Family Planning | 1,206 | 809 | 1,925 | 1,523 | 827 | 1,194 | 6,823 | 14,307 |
| Maternity | 738 | 144 | 296 | 0 | 97 | 457 | 4,370 | 6,102 |
| Well Child | 340 | 160 | 206 | 277 | 245 | 743 | 1,587 | 3,558 |
| EPSDT | 102 | 99 | 188 | 108 | 103 | 223 | 1,313 | 2,136 |
| Home Health | 1,547 | 960 | 1,031 | 1,698 | 1,831 | 1,862 | 5,355 | 14,284 |

## PUBLIC HEALTH AREA III

Public Health Area III consists of six counties in the center of Alabama. Jefferson County is the most populous in the state with the largest Health Department staff and functions separately from the five more rural counties. The other counties (Blount, Chilton, Shelby, St. Clair and Walker) comprise the Central Alabama Public Health Region and share certain demographic, health and economic problems. These counties benefit from area staff leadership and Jefferson County expertise.

### Central Alabama Public Health Region

Central Alabama Public Health Region counties have improved and, in some cases, expanded services despite proration induced cutbacks and severe financial restrictions. Early in the year layoffs and shortened work weeks were required in both Shelby and Chilton counties due to reduced revenue. By the end of the year, however, all staff had returned to full-time service.

**Environmental Health Programs**—Environmental health programs in the Central Alabama Public Health Region have benefited from areawide environmental meetings and attempts to standardize inspection and enforcement. Additional training has been provided in food regulations, rabies control and on-site sewage control to assist in improving these services in the region. Although new construction was very slow at the beginning of the year, the economic situation has improved somewhat; and calls for on-site sewage system and subdivision reviews have increased. In recognition of the quality of Shelby County's environmental services, Shelby was recently given primary responsibility for enforcing subdivision regulations. Solid waste services have been emphasized primarily in Chilton and Walker counties. Walker County appointed a new solid waste officer, and Chilton County passed local legislation to expand the role of environmental employees in enforcing littering laws.

A dramatic increase in rabies control activities occurred in all counties. The greatest increase was in Shelby County due to the large number of rabid bats reported during the year.

City ordinances were recently passed in two municipalities in Walker County (Carbon Hill and Sumiton) for fluoridation of the public water supply. Supporting resolutions were also obtained from the Walker County Medical Society. Efforts toward persuading other water systems to fluoridate are continuing throughout the region.

Area environmental staff are needed to coordinate the environmental services of the region. If funding to the counties is increased, the position of administrator from Blount and St. Clair counties needs to be filled.

**Personal Health Services**—Consolidation of programs was initiated to facilitate the conversion to the Unified Medical Record and to compensate for financial limitations. This system for recording patient data shifts emphasis from programs to individuals and is expected to improve services significantly. Blount County led the region in pilot testing this record keeping system. Local program management has been emphasized with efforts to reduce travel and to utilize county personnel more effectively. Regional supervisor meetings have assisted in developing expertise for local management. Area staff provide guidance to assure quality, education, support and specialized services for the local programs. The decentralization process is proving beneficial in coordinating personal health services.

Expansion of services included the opening in Blount County of a well child clinic, the opening in St. Clair County of a maternity clinic, and increasing WIC clinic times in all counties. By a special arrangement with Shelby Medical Center, nurse midwives now deliver Shelby County maternity patients. The Rural High Risk Pregnancy Project, funded through the State Perinatal Project, provides support for high risk maternity patients in the Complications Clinics at the University of Alabama in Birmingham. The Jobs Bill has provided funds for delivery of high risk maternity patients at University Hospitals. Additional physician clinics have been initiated in the family planning program. Gamma globulin for hepatitis exposure is available in all counties throughout the region. Local nurses participate in the tuberculosis and venereal disease programs. A limited supply of influenza vaccine was made available in these counties primarily to home health care patients. Car seat loaner programs are now operating in Blount and Walker counties in addition to the existing program in Shelby County.

Home Health programs continue to be very active in all five counties. In addition Walker County was chosen for a home health expansion grant of $51,000 from Region IV of the Department of Health and Human Services. Walker County was one of five county health departments in the state receiving federal funds for expansion.

Efforts to make local communities and government officials more aware of Health Department services through publicizing available programs have been successful. Radio, television and newspaper stories have appeared in all counties, and small increases in funding occurred despite difficult financial situations. The largest increase was in Shelby County. Shelby is projected to be the area of greatest growth in the state during the next ten years. A lovely new Health Department office has been opened in Pelham thanks to a $330,000 Appalachian Regional Commission grant and matching local funds. St. Clair County is expected to be second to Shelby in growth during the next ten years. St. Clair provided modest renovation to the Health Department building in Ashville. Chilton County funding is now provided through an agreement with the local hospital board. Both Shelby and Chilton counties benefit from local fee bills. Efforts toward improving relationships with local physicians have also been beneficial. Reporting frequently at medical society meetings, improving quality of Health Department services and referring patients to local physicians have been most helpful.

It is anticipated that improvements in Health Department services will continue in the Central Alabama Public Health Region as priority services are emphasized and efficiency is increased.

## Jefferson County

The Jefferson County Department of Health implemented a modern, state-of-the-art financial management system. As the result of an energy management study, the department put a number of cost saving measures into effect.

The department reduced administrative costs by consolidating family planning and maternal and child health as a division under the Office of Health Center Administration.

Information about patient visits is now recorded on a patient encounter form used in all department clinics. This all-in-one form has a place to record services rendered, charges, location of service and service provider. It is also used as a receipt and has an appointment slip on the back. Use of this form is the first major step toward a comprehensive data and billing system for the department.

**Environmental Health Services**—In the area of air pollution control, there were 473 complaints and 285 violations.

Approximately 40 samples of material submitted by members of the general public were analyzed for asbestos content.

This year 697 X-ray machines located in medical and non-medical facilities were inspected.

During the year permits of four food service establishments were suspended for failure to comply with Department of Health regulations. Permits for 79 soft serve frozen dessert establishments were temporarily suspended for failure to keep bacteria or coliform counts within standards.

Signs of economic recovery were seen in local real estate development. The Sanitary Engineering Division reviewed applications for development of 27 new subdivisions which would require on-site sewage disposal systems.

In addition approximately 200 applications for new construction with on-site systems were approved on a lot-by-lot basis. Of these, 58 were applications for alternate on-site systems (other than conventional septic tanks). Most of these will serve new commercial establishments.

Two special studies relating to mosquito-borne illnesses were conducted during the year. In one, serum samples were collected from wild birds to monitor for the presence of encephalitis in the community. Birds are the reservoir hosts for viral illnesses which are transmitted from birds to mankind by mosquito bites. All 187 samples tested were found to be negative.

*Home care makes it possible for patients to remain in familiar surroundings.*

The other study was part of a nationwide surveillance of *Aedes aegypti* mosquitoes by the U.S. Public Health Service. It involved collecting samples of mosquito ova from 15 sites within the City of Birmingham and submitting them to the U.S. Public Health Service for analysis. This study is being conducted to assess population density, distribution and seasonal trends of reproductive activity for this mosquito, which is the vector for yellow fever and dengue.

The rabies control center received 18,201 requests for information or service. There were 10,197 animals impounded and 1,520 animals quarantined.

**Personal Health Services**—The Tuberculosis Control Program investigated 190 possible cases of tuberculosis, confirmed 90 of these and examined 2,671 persons who were exposed to these cases.

The department established a hepatitis B vaccine clinic for persons at risk of contracting this disease. Thus far 28 persons have been completely immunized.

The Cocksackie B5 virus was identified as the agent responsible for an epidemic of viral meningitis.

The syphilis rate has leveled off with 341 cases being reported during this year. There were 7,034 gonorrhea cases reported, up only slightly from the year before. In the clinic there were 22,575 visits for treatment of sexually transmitted diseases.

Immunization levels in Jefferson County were higher than ever before. Among two year olds 87 percent were fully protected against vaccine preventable diseases, up from 75.9 percent in 1978. Of the children entering school, 98.5 percent were immunized.

Due to loss of funds, the Bureau of Dental Health had a significant staff reduction; however services increased in all but one category. The number of clinic visists was 31,998, a 13 percent increase. The rate of unkept dental appointments fell 2 percent.

The Bureau of Dental Health implemented a fluoride mouthrinse program in a school system which serves an area in which the water has not been fluoridated. The dental adhesive sealant program is another preventive measure which has been expanded. In clinics and on dental trailers, dentists apply a protective seal to the surfaces of a child's teeth which show a potential for decay.

This year there were 200 more maternity patients than last year, making clinics busier than ever. The increase may be due to hard economic times which means many women can no longer afford to have their babies at private hospitals. Funding from the Jobs Bill has made funds available for delivery of high risk pregnancies at the University Hospitals.

The home care staff made 62,480 home visits this year, an increase of 13 percent over last year with no increase in staff.

The Birmingham Area Hospice, which provides home care and grief counseling to the terminally ill, received a great deal of community support. This included financial and legal advice as well as donations from businesses and church groups.

As a result of supplemental funding made available through the Jobs Bill, the WIC case load was expanded from 8,000 to 10,000. Jefferson County was targeted for additional funding because of its high unemployment rate.

The Western Mental Health Center was also affected by record unemployment. Monthly admissions scared by 28 percent with nearly one-third of all new cases reporting employment related problems. The center's top priority and largest case load continued to be people who were chronically or severely mentally ill. In the past year serving this population and the unemployed stretched the center's resources to the limit. At the same time shrinking federal dollars and state proration have made staff reductions necessary. Therefore the center has streamlined its services so that it can meet the most pressing needs of its clients.

## PUBLIC HEALTH AREA IV

The presence of an administrator, a director of nursing, a director of environmental health and a coordinator for each major program essentially completed the staff of the assistant state health officer (ASHO) for Public Health Area IV. Vacancies in the positions of immunization coordinator and health educator necessitated that those duties be assumed insofar as possible by other staff members. The multi-county subunits, five in number, continued under the direction of a health services administrator assisted by a nursing supervisor and an environmental supervisor. Each individual county had its own nursing supervisor. At year's end organizational structure throughout the area, for all practical purposes, was complete.

Several counties had severe funding problems during the year. Lack of funds forced Talladega County to cut back to four days a week for more than four months. The Cleburne County Commission failed to appropriate funds for public health. To continue services the Cleburne County Health Department used contingency funds. In December the County Commission entered into an agreement with the Cleburne County Hospital Board to help fund the Health Department.

Local boards of health met regularly, and the ASHO attended 31 meetings during the fiscal year. Increased interest in meetings on the part of board members resulted from having an agenda with supporting documents for each meeting and by having the local administrator, nursing supervisor and environmental supervisor attend each meeting to give a brief report and answer questions. Increased interest resulted in stronger support and direction from the local boards of health to the local health departments.

With an Applachian Regional Commission grant of $311,000, the Etowah County Health Department began an extensive renovation project in December 1982. An asbestos problem brought construction to a halt; and in order for contamination to be abated, it became necessary to vacate the building. The entire Etowah County Health Department was relocated in temporary quarters in downtown Gadsden. As the year ended additional funding of $151,000 was being sought from ARC for the asbestos cleanup following which renovation work is to be resumed.

The Calhoun County Health Department obtained ARC money amounting to $151,000 for renovation of most of the first floor to its building. Construction began in May 1983 and at year's end remained incomplete with the contractor projecting that completion could be expected in early 1984. This project will provide clinical space, administrative space for Area IV and general improvement.

The two counties in which extensive renovations of buildings have been undertaken represent 40 percent of the population of Public Health Area IV. The two health departments have been greatly inconvenienced by this work but have performed well under adverse circumstances. It is expected that much improvement will follow completion of this work.

**Environmental Health Services**—Scheduling, organizing and teaching of certification courses continued to involve area, multi-county and local environmentalists. PHA IV now has four environmental supervisors who have been approved by the Bureau of Inspection as teachers and plans to complete this training for 11 more environmentalists. Local environmentalists conducted four food certification courses for 94 participants. The immediate goal is to present at least one such course per county every year.

The implementation of door-to-door garbage pickup service in every county is a high environmental priority in PHA IV. Etowah County adopted this type of service during the year, making eight of the eleven counties which have abolished countywide canister service. Calhoun County has initiated negotiations for a door-to-door service, leaving only Clay and Cleburne counties with canisters.

At the direction of the State Health Officer and working closely with camp operators, state and county environmentalists, and other consultants, the Public Health Area IV staff wrote regulations governing the safe and sanitary design, maintenance and operation of camps for each of the 11 counties. The proposed regulations are identical for each county and were subjected to public hearings in each county. At year's end public hearings were completed in nearly all counties. Final drafts will be ready for presentation to county boards of health for adoption in 1984.

Special and alternative on-site sewage disposal systems are being utilized in increasing numbers in Public Health Area IV. During the present fiscal year, environmentalists assisted in the installation of two dual bed systems, 12 shallow implacement systems and 15 aerobic systems in the area. One of the aerobic systems is worthy of special note since it was for a 24 unit apartment complex in DeKalb County.

The rapport which the health departments have with the manufacturers of septic tanks in the area helped in successfully bringing all 15 manufacturers into compliance with current regulations.

The recent completion of an Alabama Power Company dam and backwater system is causing extensive changes in Randolph County. Many real estate developers are becoming active in the county. During this year eight final subdivision reports were completed, establishing a record for Randolph County.

Environmentalists of Public Health Area IV, working with the Bureau of General Sanitation at the state level, completed all 34 final subdivision reports which had been probated.

Due to the unique organization of environmental services in PHA IV, the decision has been made for primary enforcement of subdivision regulations to be assumed by each county. Initial work toward this goal has been undertaken with implementation throughout the entire area to become effective October 1, 1984.

A strong inspection program has improved the jails in the area.

The second Alabama June Jam was held by the musical group "Alabama," thus establishing it as an annual event which attracts more than 35,000 additional people to Fort Payne. The DeKalb County Health Department continued to play a vital role in the success of this event. After planning and inspection, sanitation and food service operations functioned smoothly with few problems. About 80 percent of the receipts from the June Jam are donated by the musical group for charitable purposes in DeKalb County.

The Talladega County Health Department plays a vital role in the National Motor Speedway events each year. Environmentalists are available at the track on weekend race days. Prior to races they inspect concession stands, mobile food vendors and restrooms.

A music park opened at Henager in May. Several outdoor concerts were held for which the DeKalb County Health Department inspected food vendors and restroom facilities.

Health departments responded to calls to inspect the damage and make recommendations on any public helath problems when tornadoes hit the area. One touched down in Fort Payne in the spring, and another one struck the Oxford area in December. Due to contamination and lack of being maintained at proper temperatures, much food was potentially hazardous and had to be destroyed.

**Personal Health Services**—Public Health Area IV experienced a general increase in services at all levels. In the WIC Program participation increased from 5,695 to 8,107 during the fiscal year. Maternity visits jumped nearly 40 percent and child health visits escalated almost 73 percent. Nearly 30 percent more new family planning patients were admitted in 1983 than in 1982. Many counties had increases in the Home Health programs.

As a result of continued funding in the amount of $84,295 by the Region IV Perinatal Advisory Committee, the Infant Mortality Reduction Program has become well-organized and maintains close relationships with patients. The program refers patients to almost every other program providing personal health services. Of all new maternity patients enrolled in the maternity clinics of the local health departments, 93 percent were identified as medium or high risk. The program paid $19,759 for consultations in the offices of private physicians and for laboratory work which included necessary ultrasound scanning and fetal monitoring assessments.

The High Risk Home Visitation component of this program provided 1,394 special home visits by public health nurses. This number represented an increase of almost 100 percent in such visits over the preceding year. The program reimbursed the Home Health Services in the amount of $25,137 for those visits, and that money went back into the general fund of the local health departments.

Unexpected Jobs Bill money amounting to $9,450, coming late in the fiscal year, allowed small payments to physicians for in-hospital delivery of 63 patients. If money remains available, it is expected that fiscal year 1984 will require $36,000 for 240 in-hospital deliveries. Finally the two largest health departments, Calhoun and Etowah counties, each used program funds for an ultrasound scanner and a fetal monitor. This equipment cost $52,000.

The important health education component of the program suffered a reverse with the resignation of the health educator. Efforts were under way to fill the vacancy as the year closed. The School of Public Health at the University of Alabama in Birmingham continued to provide professional evaluation for the program.

The Randolph and the Tallapoosa county boards of health adopted the fee-for-service collection system, and by this action the system became implemented in all counties of Public Health Area IV.

Public Health Area IV was successful in obtaining home health expansion grants for the Randolph and the Talladega county health departments. Each of the counties received $50,000 which was to be made available for the coming year.

To increase immunization levels in the preschool age population, a unique effort emphasized regular inspections and immunization surveys of the approximately 100 day care centers in Public Health Area IV. Following several conferences with representatives of the Department of Pensions and Security it was decided that all day care centers would be inspected by environmentalists from the county health departments on the same schedule as food service establishments. The environmentalists, after a training session with nursing and immunization personnel, were made responsbile for the immunization survey. A nurse in each county health department, who had been designated as immunization coordinator and who had been instructed to take appropriate action to immunize deliquents, received the reports from the environmentalists. Initial surveys revealed compliance as low as 58 percent and as high as 98 percent. It is expected that frequent, thorough checking of day care centers and vigorous follow-up will result in significant improvement in the immunization levels in preschool age children.

*TB Nurse Chris Thacker explains therapy procedure to a patient.*

Following consultations with state tuberculosis representatives and area physician coordinators, the Tuberculosis Program in Public Health Area IV was strengthened by assigning a tuberculosis nursing coordinator and tuberculosis clerk typist to each county health department. In having personnel with definite responsibilities available during normal working hours, it thus became possible for tuberculosis patients and contacts to pick up medications, have skin testing and obtain aerosol-induced sputums any time in all county health departments in the area. Public health representatives, largely freed from in-house duties, are experiencing more time for field work. There were 65 new cases of tuberculosis reported in PHA IV during 1983.

Total syphilis morbidity in PHA IV increased 36.6 percent with 75 cases in 1983 compared to 55 in 1982. The 49 cases of primary and secondary syphilis represent a 122.7 percent jump. The 1,583 cases of gonorrhea are 36.8 percent more than the year before. Two cases of penicillinase-producing *Neisseria gonorrhoeae* were reported.

## PUBLIC HEALTH AREA V

Public Health Area V has 18 counties, more than any other public health area in the state. These counties make Area V the second largest in population and also the second largest in land area. Located in Southeastern Alabama, the counties that make up Area V are diverse in population, socioeconomic structure, type and level of public health services provided, and administrative organization.

Montgomery and Houston counties are each staffed with a local health officer, a nursing director, and a director of environmental health. The remaining sixteen counties are under the supervision of health services administrators.

The administrative structure of PHA V includes program coordinators for the family health programs, immunization, tuberculosis and home health. Continued progress during the year developed the roles of area administrator, two regional WIC coordinators, three regional nursing coordinators and a new program manager for the Venereal Disease Program. The only area position remaining unfilled is that of environmental coordinator.

A high priority has been placed on meetings with local Health Department staffs and local medical societies or boards of health to discuss mutual problems. As a result of this cooperation, two cancer detection clinics were initiated in Area V, one in Bullock County and the other in Dale County.

A major step forward was accomplished during the year. When current permits expire, there will be no more granny midwives in Area V. Since Area V accounted for 88 percent of the granny midwife deliveries in the state, this will have a significant impact on Alabama statistics.

The Covington County Commission provided funds for the Health Department to remove the asbestos ceiling and to refurbish the interior of the building.

**Environmental Health**—Environmental services have traditionally been hardest hit by declining economic conditions. The recession of 1982 left several counties in Public Health Area V without full-time environmental coverage. Funds became available in 1983 to bring the environmentalist positions back to full time for Lowndes and Crenshaw counties.

Since there was no Area V environmental coordinator, a special environmental committee was formed to improve and standardize the delivery of sanitation and inspection activities. The committee consisted of the environmental directors of Montgomery and Houston counties, the area administrator, and an environmentalist representing the sixteen smaller counties.

To improve the quality of the food sanitation program, the Environmental Committee adopted the use of the legal notice form. This proved to be an effective tool in achieving compliance with food regulations.

As surveys and program audits revealed weaknesses, the Environmental Committee reviewed problems of areawide significance and made specific recommendations to the assistant state health officer.

In the summer of 1983 subdivisions in Area V were identified by surveying county probate offices. Of the 31 subdivisions in the 18 counties, 28 had been approved. The remaining three are in the process of being approved.

Septic tank manufactureres in Public Health Area V were surveyed in 1983, and 18 manufacturers had their products approved for design and construction. Two manufacturers do not yet meet the requirements for approval.

The Area V health officers and adminstrators met with the director of the Bureau of Dental Health and his staff to explore how local environmentalists might assist communities to initiate the fluoridation of their water supplies. Six communities in four counties of Area V have passed ordinances to fluoridate but have not yet begun to do so. Health Department involvement is complicated by the fact that the responsibility for public water supplies has been transferred to the Department of Environmental Management.

**Personal Health Services**—Most counties in Public Health Area V reported an increase in the use of Health Department services, especially in the Home Health Program. The home health case load in Barbour and Dale counties increased by approximately 25 percent. On an areawide basis, public health nurses made 38,566 visits to render home health services.

Operation 14, a unique program in which tetanus-diphtheria boosters are offered to ninth graders in all the schools in the area, continued its success with increasing numbers of students receiving the immunization. In the overall immunization program, the most important objectives recognized for Area V have been high levels of immunity in day care centers and kindergartens, where children first begin to associate closely with each other with consequent exposure to communicable diseases. The level of immunization in Area V schools was 99 percent; the level of immunity among day care children was 96 percent.

The Public Health Area V Venereal Disease Program came under new management in June of 1983, and the incidence of primary and secondary syphilis began to decrease substantially.

A few counties, with the concurrence of the county boards of health, offered flu vaccine to the public, charging a fee that would cover the cost of the vaccine.

In 1983 Lee County adopted a coordinated clinic system. More efficient use of staff time and improved accessibility to services dramatically increased the patient case load. Coordinated clinics have been operating in Butler, Coffee, Covington and Geneva counties for several years.

Autauga and Houston counties were selected as pilot projects for the Unified Medical Record System. As a part of this project, WIC services were incorporated into the Well Child, Medicaid Screening and Maternity programs. Initial reports indicated some problems in the transition to the Unified Medical Record System, but the benefits far outweighed them in terms of staff utilization and convenience for the patients.

## PUBLIC HEALTH AREA VI

Public Health Area VI is comprised of 13 counties in Southwest Alabama. Mobile County, Dallas and Wilcox counties, and the Gulf Coast District are served by three local health officers. Five health services administrators provide management in the remaining seven counties. Because of the low population density, 14 satellite clinics are in operation to serve the health needs of the rural population.

**Environmental Health Services**—Although the nation began to climb out of the recession, homebuilding and the related septic tank inspections remained slow in most of the area's rural counties in 1983. As the new year began more construction was taking place, and the number of septic tank inspections and subdivision approvals are expected to rise significantly. A program to ensure that all subdivisions probated will be approved by the health departments will be emphasized in 1984.

The quality of food establishments continues to be a problem, especially in rural areas, since few fast-food establishments are replacing older structures with entrenched problems. However through food handler certification courses, additional training of local environmentalists and the addition of an area environmental consultant, progress can be made in 1984.

**Personal Health Services**—The utilization of clinical services for maternal and child health and family planning increased in fiscal year 1983, particularly in family planning. The health departments met 68 percent of the estimated in-need population in maternity programs and 28.5 percent in the well child programs. Some indigent inpatient delivery services were provided through contracts with three hospitals in the area.

The local health departments continued to work closely with the Regional Perinatal Advisory Committee in an attempt to upgrade the quality and accessibility of care for the indigent population. The committee funded participating physicians for prenatal care and an obstetric nurse clinician to work with local public health nurses. In addition the committee funded a two-day workshop on maternity management for public health nurses in Area VI.

The Infant Follow-Along Program continued to provide follow-up on babies discharged from the Neonatal Intensive Care Unit at the University of South Alabama Medical Center. These clinics were staffed by professional medical personnel from the medical center and local health nurses.

The local health departments continued an active role in the Genetics/Birth Defects Task Force which met quarterly. After the needs had been assessed, two clinics were conducted by members of the Department of Medical Genetics, University of South Alabama, and the Monroe County Health Department staff. Clinic attendance was good and additional marketing is planned in order to serve the existing needs of the population better.

The Cancer Detection Program has now been totally decentralized. To upgrade the nursing skills of the local nurses, training by specialized nurses has been conducted in four counties.

Because of increasing competition by private agencies, the utilization of home health services of health departments has generally decreased. To create physician and patient awareness of available services, a more comprehensive marketing program by the local health departments is planned for 1984.

Baldwin County saw a significant increase in its Home Health Program as a result of special block grant funds. The Conecuh County Health Department, working with the Conecuh Medical Clinic, has received Orphan Drug Bill and Jobs Bill funds to expand its Home Health Program in 1984.

The Homemaker Training Program is being conducted in five county health departments. This program funded by the Department of Pensions and Security and coordinated by the area nursing director, trains nonprofessionals to provide basic care to homebound patients. The local health departments are reimbursed for these five-session training programs.

In most counties the Hypertension Program is incorporated in the general program activities. However the Dallas County High Blood Pressure Clinic, as a result of space limitations, operates in a separate facility from the Health Department. Through the generous manpower support of the Family Practice Center and the general support of the local medical community, the Dallas County clinic has been able to serve a large volume of needy patients. Because of the growing demand for services and the limited resources of the program, patient income guidelines were imposed in 1983.

During fiscal year 1983 the WIC Program grew significantly. There was approximately a 24 percent increase in the number of monthly vouchers issued. This increase was a result of an expansion of the WIC nutrition criteria but, to a greater extent, of expanded outreach efforts and expanded goals of the local health departments. The quality of WIC services was enhanced by the employment of three additonal nutritionists in the area, allowing professional nutrition staffing in each local WIC Program. To provide more comprehensive services to patients, the unification of WIC and other clinic services continued to be emphasized.

The Venereal Disease Control Program continued to operate scheduled clinics in Baldwin, Dallas and Mobile counties. In the more rural counties great reliance was placed upon local physicians, with area VD representatives monitoring the positive reports and working closely with the local sexually transmitted disease coordinator, a public health nurse, in each county.

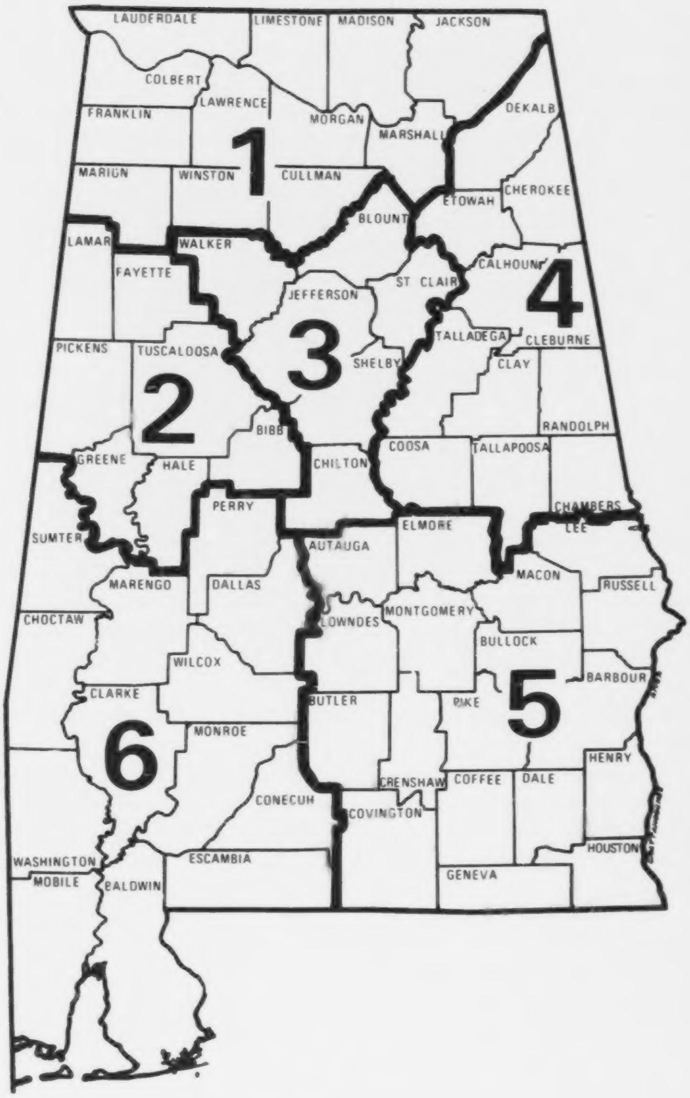
*Support personnel are invaluable in providing public health care.*

During calendar year 1983, Area VI experienced a 47 percent increase in primary and secondary syphilis morbidity. Gonorrhea decreased 15 percent. Of major concern was the dramatic increase in penicillinase-producing *Neisseria gonorrhoeae* (PPNG) in Mobile County. Mobile County reported 57 cases of PPNG in 1983, with 37 reported during the last quarter of the calendar year. High priority is now being applied to this outbreak by Mobile County and the area staff.

Because of the growing VD problem, four additional VD representatives are being hired in Area VI in 1984. Most of these positions will replace personnel lost because of limited funds in recent years. With additional personnel and clearly defined priorities, the staff are optimistic that significant progress can be achieved in 1984.

The Area VI Tuberculosis Program experienced a significiant decrease in new infectious cases in 1983. New cases dropped from 129 to 92, a 28 percent decrease. The inpatient contract for Area VI patients was continued with the University of South Alabama Medical Center. Forty-two patients were admitted and discharged at the center in 1983 for an average 10-day stay.

## CHART 2-1
## PUBLIC HEALTH AREAS
## 1983


LAUDERDALE
LIMESTONE
MADISON
JACKSON
COLBERT
LAWRENCE
FRANKLIN
MORGAN
MARSHALL
DEKALB
1
MARION
WINSTON
CULLMAN
ETOWAH
CHEROKEE
BLOUNT
LAMAR
WALKER
CALHOUN
FAYETTE
JEFFERSON
ST CLAIR
4
3
PICKENS
TUSCALOOSA
TALLADEGA
CLEBURNE
SHELBY
CLAY
2
BIBB
RANDOLPH
GREENE
HALE
CHILTON
COOSA
TALLAPOOSA
CHAMBERS
PERRY
LEE
SUMTER
AUTAUGA
ELMORE
MARENGO
DALLAS
MACON
RUSSELL
CHOCTAW
LOWNDES
MONTGOMERY
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
PIKE
5
MONROE
6
HENRY
CRENSHAW
COFFEE
DALE
CONECUH
COVINGTON
WASHINGTON
ESCAMBIA
HOUSTON
MOBILE
BALDWIN
GENEVA

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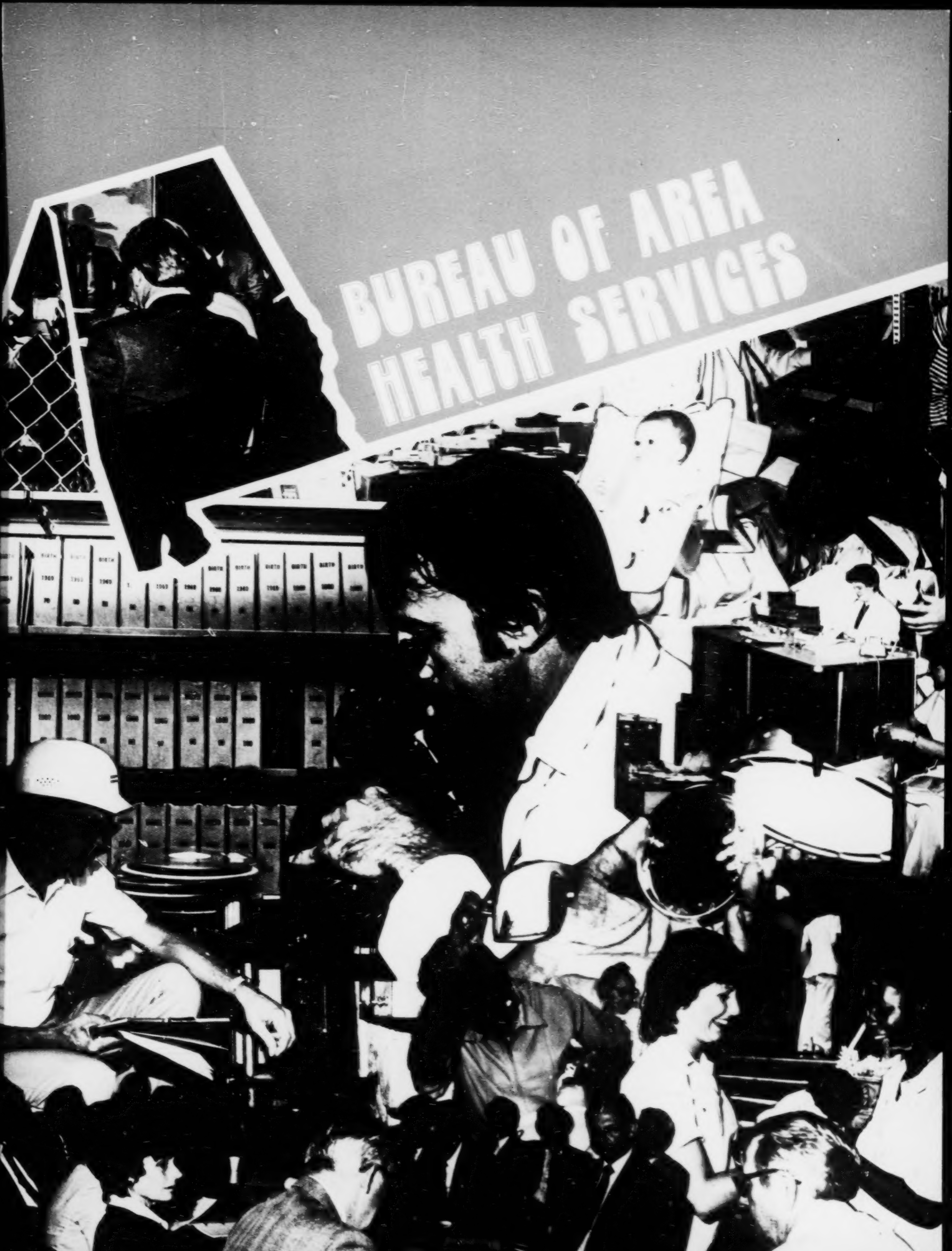
# BUREAU OF AREA HEALTH SERVICES



# BUREAU OF AREA HEALTH SERVICES

The Bureau of Area Health Services worked with program staffs of other units of the Department of Public Health and with the assistant state health officers to continue improving the program performance reporting system. Proposed performance measures with a numerical target for each had been established. Reports reflecting actual performance and the unit cost of each program provide a tool to evaluate program effectiveness. Information in these reports is used by the State Committee of Public Health, the State Health Officer, the assistant state health officers and program directors in determining where management action is needed.

With staff support from this bureau, the Program Priority Committee refined the 1983 priorities. State, area and local personnel gave advice on the criteria used in determining program importance. Population in need, emphasis on prevention, communicability of each illness and the availability of alternative sources of care were used as the basis for the following priority designations.

**High**

Milk Inspection
Food Inspection
General Epidemiology
Venereal Disease
On-site Sewage Disposal
Radiological Health
Tuberculosis Control
Immunization

**Medium**

Vector Control
Family Planning
Perinatal Project
Hotel and Prison Inspection
Medicare/Medicaid Certification
Child Health
Health Facilities Licensure
Emergency Medical Services

**Low**

Maternity Clinics
Hypertension
Dental Health
Cancer Detection
Home Health Services
Women, Infants and Children (WIC) Nutrition Services

Five counties participated in a pilot evaluation of the proposed unified medical record for use in all county health departments. Their recommendations as well as those of an oversight committee were used to revise the format. This record, which is expected to reduce time spent on medical records, is projected for implementation statewide in 1984.

Studying computer needs and designs in county health departments required considerable time of the bureau staff.

The bureau administered the Preventive Health and Health Services Block Grant. The grant funded or partially funded eight services including emergency medical services, hypertension control, vector control, fluoridation promotion, health education, and rape prevention and counseling.

A refugee grant program which supports refugee services in seven county health departments was continued during fiscal year 1983. In this program 174 refugees were screened.

The bureau provided management services for the State Health Officer in numerous activities and provided assistance and support to the assistant state health officers.

## Division of Community Health Services Coordination

As a part of the Bureau of Area Health Services, Community Health Services Coordination supports at both the state and the local levels the bureau's central administrative planning functions, including the Preventive Block Grant. In addition the State Committee of Public Health designated it as the focal point for the enhancement of public health services and resources in rural communities in Alabama.

A large percentage of health care delivery in rural settings, especially in health manpower shortage areas, is performed by federally sponsored community health centers. In 1983 positive steps were taken for health services and resources coordination between the community health centers and the Department of Public Health. A proposed cooperative agreement with the federal Bureau of Community Health Services will provide the Health Department an opportunity for input into federal funding decisions on development and maintenance of community health centers. The Department of Health and Human Services is considering the proposal.

The division also developed a contractual agreement between the Department of Public Health and the Health Resources Administration. Under this proposal the Health Department will be responsible for coordination, placement and management of National Health Service Corps assignees in the state. If this contract is approved, the execution of it will begin in the middle of fiscal year 1984.

The Division of Community Health Services Coordination is the department's point of contact with the National Rural Primary Care Association. Information on health promotion, disease prevention and education are shared.

The division has assessed the status of the state regarding the objectives set forth in *Promoting Health/Preventing Disease: Objectives for the Nation,* a publication of the Department of Health and Human Services.

In 1983 this office was given the task of developing the health component of the Statewide Emergency Management Plan. Statewide coordination of health resources for critical areas in the event of a crisis relocation of the population was planned.

*The Bureau of Area Health Services coordinates activities for the Committee of Public Health.*

Annually the Association of State and Territorial Health Officers/National Public Health Program Reporting System requests data on the use of block grant funds. The report which ASTHO compiles is the only source of national data on the states' use of block grant funds. This division collects the information from program staffs and submits it to ASTHO.

Assistance with the Preventive Block Grant Program was rendered by developing evaluation criteria and coordinating reporting requirements. Legislation mandated that rape prevention/consultation services be funded within this program. The Bureau of Area Health Services negotiated contracts with four mental health/social action centers across the state for this service. This division administered the program.

"The Emergency Expenditure to Meet National Needs Act of 1983" (Jobs Bill) made funds for home health programs available to the counties. Technical assistance was given to seven counties which had practically no experience in grant writing or in the procedure for securing clearance through state health administration or regional and state Clearinghouse OMB (Office of Management and Budget) Circular A-95 review. Five proposals were funded.

Throughout the year there have been requests for information on rural health status in Alabama. The most requests have been for technical data from rural health coalition groups, students, consultant groups and private companies. Funding information, services provided and contact persons in various community health centers were usually requested. Inquiries from professional service providers regarding practice opportunities in the state are received periodically. Although the office is not currently recruiting physicians, keeping abreast of community needs results in quality referrals.

## Division of Emergency Medical Services

Regulating, inspecting and licensing of providers of prehospital care is the function of the Division of Emergency Medical Services. In fulfilling its responsibility, EMS administered standardized written examinations for licensure to 1,739 emergency medical technician-basics and to 568 emergency medical technician-intermediates. Paramedic examinations were administered at the training site during 1983.

Continuing education is mandatory for license renewal. EMS approved 136 courses but did not approve five. Four are pending. While 1,839 individuals were recertified, the licenses of 269 individuals were cancelled because they failed to obtain the required continuing education credits.

During 1983 three-year state licenses were issued to 1,096 EMT-basics, 519 EMT-intermediates and 368 EMT-paramedics. Also 141 ambulance drivers were issued the three-year license.

Emergency Medical Services inspected 278 ambulance vehicles. Annual licenses were issued to 127 ambulance service operators. Only 4 percent of the licenses were provisional and convalescent coach. The other 96 percent were regular licenses.

The division issued authorization to 165 advanced life support providers to administer approved intravenous fluids and medications prior to the patient arriving at the hospital. Seventy-three hospital pharmacies were approved to supply intravenous fluids and medicines to ALS providers.

On January 19, 1983, the State Committee of Public Health endorsed the statewide guidelines on prehospital medical control and accountability. These guidelines include quality control procedures for EMTs functioning in the field, triage/treatment/transfer protocols and credentialing of EMTs functioning at the advanced levels within the regional EMS systems.

The State Committee of Public Health reviewed and approved the medical control plans for four of the regions of the state. North Alabama [illegible] West Alabama EMS, Birmingham EMS and East Alabama EMS systems were approved. Southeast Alabama EMS and Southwest Alabama EMS systems were delayed and will undergo review early in 1984.

The State Medical Control Committee provides medical advice to the state EMS Division in addition to coordinating statewide medical control matters. Upon being so designated by the Committee of Public Health, the medical directors of the six regional EMS systems make up this committee.

The EMS Division sponsored and provided staff for a comprehensive study of the provision of continuing education for all three levels of EMTs. The Office of Highway and Traffic Safety funded this study from which it was concluded that approved continuing education is needed for the EMT-basics in the same manner as is currently required for the advanced and the intermediate levels. The study also pinpointed the need to require annual participation in a minimum number of clinically oriented training subject areas.

The division conducted a study of the testing of the EMT-paramedics trained by the eight approved educational institutions. The study indicated a need to standardize and improve the EMT-paramedic testing by adopting the paramedic examination of the National Registry of EMTs as a prerequisite for state licensure as an EMT-paramedic.

Emergency Medical Services Division fostered the reorganization and revitalization of the Civilian Coordinating Council of the Wiregrass MAST (Military Assistance to Safety and Traffic). The purpose is to improve support provided the military unit stationed at Fort Rucker and to facilitate access to and provision of helicopter ambulance services available through this vital program.

The division provided staff support for five meetings of the State EMS Advisory Board during 1983.

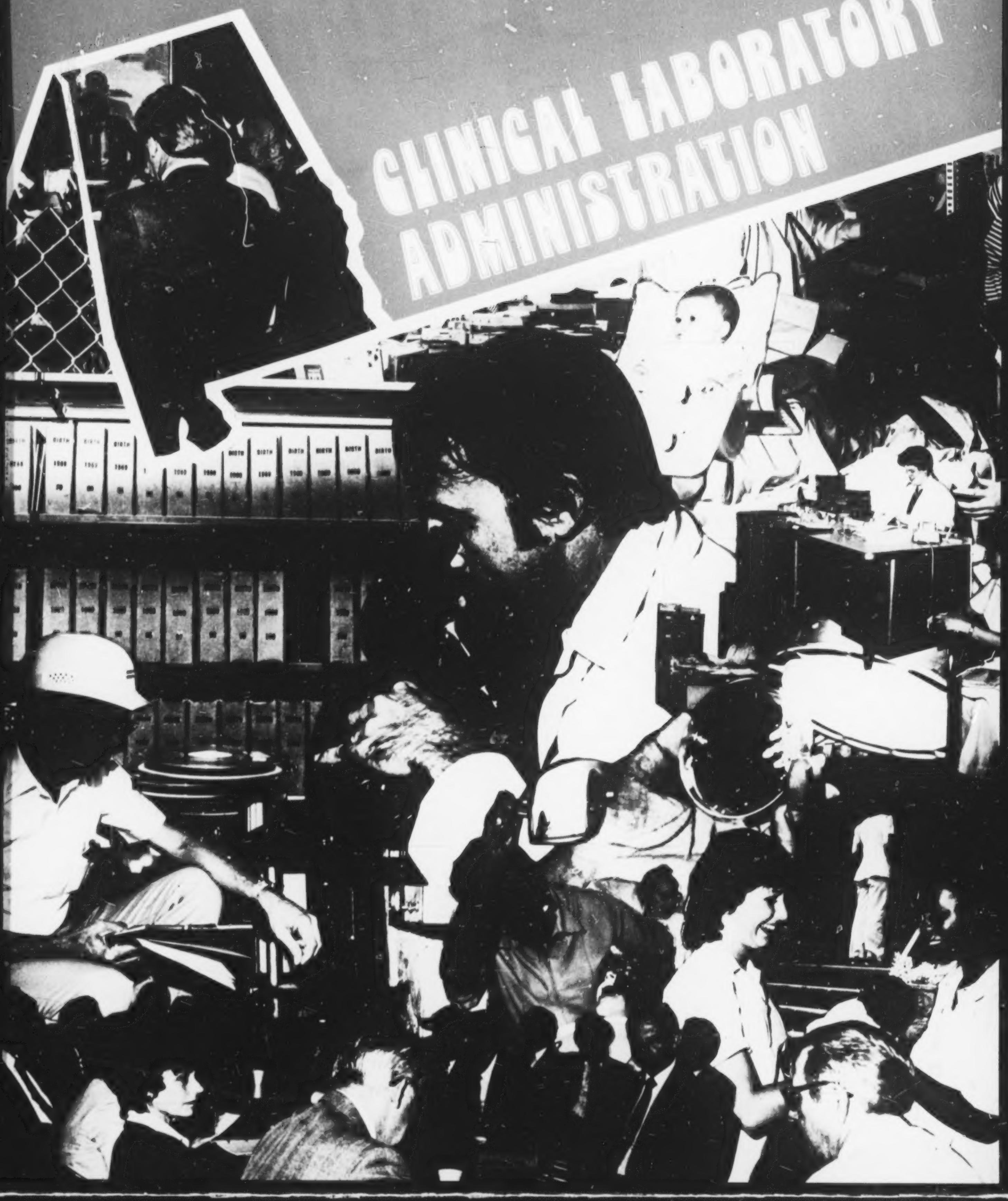
UNITED STATES ARMY

*Trauma patients have received inestimable benefits from the expedited transportation by army ambulance helicopters assigned to the Wiregrass MAST program at Fort Rucker.*

# TABLE 3-1
# COUNTY HEALTH DEPARTMENT ACTIVITIES
# 1983

| 1983 ACTIVITIES | VITAL STATISTICS | IMMUNIZATION | WELL CHILD MEDICAL CLINICS | WELL CHILD SCREENING CLINICS | WIC | HEALTH EDUCATION | SCHOOL HEALTH | DENTAL CARE | DENTAL HEALTH EDUCATION | FLUORIDE MOUTH RINSE | MATERNITY MEDICAL CARE | MATERNITY NURSING CARE | FAMILY PLANNING | TUBERCULOSIS | VENEREAL DISEASE | HYPERTENSION | BLOOD PRESSURE SCREENING | CANCER DETECTION | HOME HEALTH CARE | FOOD AND WATER INSPECTION | MILK INSPECTION | SOLID WASTE ENFORCEMENT | VECTOR CONTROL | SEWAGE DISPOSAL INSPECTION | SUBDIVISION REVIEW | SWIMMING POOL INSPECTION | JAIL INSPECTION | RABIES CONTROL | CHILD CARE FACILITY INSPECTION | EPIDEMIOLOGY SURVEILLANCE | REFUGEE SCREENING | OTHER PROGRAMS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PUBLIC HEALTH AREA I |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NORTHWEST ALABAMA REGIONAL HEALTH DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COLBERT | X | X | X | X | X | X |  | X | X |  |  |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| FRANKLIN | X | X | X | X | X | X |  | X | X |  |  | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| LAUDERDALE | X | X | X | X | X | X |  | X | X |  |  |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| TRI-COUNTY DISTRICT HEALTH SERVICES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CULLMAN | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  |  |  | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| LAWRENCE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  |  |  |  | X |  |  | X | X | X | X | X | X | X |  |  |  |
| LIMESTONE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  |  |  |  | X |  | X | X | X | X | X | X | X | X |  |  |  |
| MORGAN | X | X | X | X | X |  | X |  |  |  |  | X | X | X | X |  |  |  | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| JACKSON | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X |  |  | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| MADISON | X | X |  | X | X | X | X |  |  |  |  |  | X | X | X |  | X |  | X | X |  |  | X | X |  | X | X | X | X | X | X |  |
| MARION | X | X | X | X | X |  | X |  |  |  |  |  | X | X |  |  | X | X | X | X |  | X |  | X | X | X | X | X | X | X |  |  |
| MARSHALL | X | X | X | X | X |  |  |  |  |  |  |  | X | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| WINSTON | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| PUBLIC HEALTH AREA II |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WEST ALABAMA DISTRICT HEALTH DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BIBB | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| GREENE | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X |  | X | X |  | X | X | X | X |  | X | X | X | X |  | X |
| LAMAR | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| PICKENS | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X |  | X | X |  | X | X | X | X |  | X | X | X | X |  | X |
| TUSCALOOSA | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X |  | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| FAYETTE | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| HALE | X | X | X |  | X | X |  |  |  | X |  |  | X | X | X | X |  | X | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| PUBLIC HEALTH AREA III |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BLOUNT | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| CHILTON | X | X |  | X | X | X | X |  |  | X | X | X | X | X |  |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| JEFFERSON | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| ST CLAIR | X | X | X | X | X | X | X |  | X |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| SHELBY | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| WALKER | X | X |  | X | X | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X |
| PUBLIC HEALTH AREA IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CALHOUN | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| CHAMBERS | X | X |  | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| CHEROKEE | X | X | X | X | X | X |  |  | X |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| CLAY |  | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| CLEBURNE | X | X | X | X | X | X | X |  |  |  |  | X | X | X | X |  | X | X | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| COOSA | X | X | X |  | X | X |  |  |  | X | X | X | X | X |  |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| DEKALB | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| ETOWAH | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| RANDOLPH | X | X | X |  | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| TALLADEGA | X | X | X | X | X | X |  |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| TALLAPOOSA | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X |  | X | X |  | X | X | X | X |  |  |
| PUBLIC HEALTH AREA V |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AUTAUGA | X | X | X | X | X | X | X | X |  |  | X | X | X | X |  |  | X |  | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| BARBOUR | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| BULLOCK | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| BUTLER | X | X |  | X | X | X | X |  | X | X |  | X | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| COFFEE | X | X | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| COVINGTON | X | X |  | X | X | X | X |  | X |  |  |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| CRENSHAW | X | X |  | X | X | X | X |  | X | X |  |  | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| DALE | X | X |  | X | X | X |  |  | X | X |  |  | X | X | X |  | X | X | X | X |  |  |  | X | X |  | X | X | X | X |  |  |
| ELMORE | X | X | X | X | X | X | X |  |  |  | X | X | X | X |  |  | X |  | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| GENEVA | X | X | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| HENRY | X | X |  | X | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| HOUSTON | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X |
| LEE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| LOWNDES | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| MACON | X | X | X | X | X | X |  |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X |  | X |  | X |
| MONTGOMERY | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X |
| PIKE | X | X |  | X | X | X | X |  | X |  |  |  | X | X | X |  | X |  | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| RUSSELL | X | X | X | X | X | X |  |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| PUBLIC HEALTH AREA VI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GULF COAST DISTRICT HEALTH DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BALDWIN | X | X |  | X | X | X | X |  |  | X | X |  | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| CONECUH | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| ESCAMBIA | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X | X |  |  |
| CHOCTAW | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | X |  | X |  | X | X |  | X | X | X | X |  |  |
| CLARKE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |
| DALLAS | X | X |  | X | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X |  | X | X | X | X | X |  |
| MARENGO | X | X | X | X | X | X | X |  | X |  |  | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  |  |
| MOBILE | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X |  | X | X | X | X | X | X | X | X | X | X |
| MONROE | X | X | X | X | X | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X |  | X |
| PERRY | X | X |  | X | X | X |  |  | X |  | X | X | X | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X |  |  |
| SUMTER | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X |  | X |  | X | X |  | X | X | X | X |  |  |
| WASHINGTON | X | X |  | X | X |  |  |  |  |  | X | X | X | X | X | X | X | X | X | X |  | X |  | X | X |  | X | X | X | X |  |  |
| WILCOX | X | X |  | X | X |  |  |  |  |  |  | X | X | X | X |  |  |  | X | X |  |  |  | X | X |  | X | X | X | X |  |  |

# CLINICAL LABORATORY ADMINISTRATION



# CLINICAL LABORATORY ADMINISTRATION

The Clinical Laboratory Administration experienced several programmatic changes during fiscal year 1983. The majority of these changes increased the laboratory's efficiency in providing services.

The Alabama Board of Medical Technicians Examiners was abolished by the Sunset Committee of the Alabama Legislature. This board was responsible for approving individuals to perform premarital blood testing. The laboratory was given the responsibility of restructuring the entire premarital approval program. New guidelines conforming to the Alabama State Board of Health *Rules, Regulations and Standards: Independent Clinical Laboratories* were used to establish the criteria for persons to be classified as technologists. These guidelines resulted in the quality and standards of the personnel seeking approval being upgraded. The Bureau of Licensure and Certification assumed the responsibility of reviewing and approving applicants' qualifications. The laboratory developed and implemented for the first time a formal protocol for proficiency testing and on-site visitation.

Two other programs which were changed during the year were abnormal hemoglobin screening and cytology. The abnormal hemoglobin program was withdrawn from the private sector and limited only to county health departments because of a decrease in funding. Cytology testing was transferred to the Cancer Detection Division of the Family Health Administration in order to provide a more cost effective, consolidated program.

The laboratory instituted a specimen identification policy to avoid the litigation problem experienced by other states due to improper labeling or not labeling of specimens. This policy requires that all specimens received for testing must have the patient's name on both the specimen and the request form.

The Mobile Branch Laboratory was relocated into temporary facilities at Brookley Field. This move was necessary because the building in which the laboratory had been located was sold by the Mobile County Board of Health. Construction of a new laboratory building is anticipated to begin in late fiscal year 1984.

The CLA continued to provide cost effective services with exceptional quality at a high level of productivity. Laboratory procedures were furnished at an average cost to the taxpayers of $2.95 per test. A 4 percent reduction in staffing occurred during the year; however the CLA maintained its ranking in the top four public health laboratories in the nation as published in the *Consolidated Annual Report on State and Territorial Public Health Laboratories* of the U.S. Department of Health and Human Services.

## Administrative Support Division

**Purchasing**—The purchasing office processed all requisitions from the central and branch laboratories, ordered and distributed supplies and equipment required for operation, and maintained inventory records.

**Animal House**—In the animal house, animal brains were removed for rabies examination and mice were bred for use in laboratory tests.

**Stockroom**—The personnel of the stockroom worked in conjunction with both the purchasing and packing sections to fill, pack and supply orders for state and local health departments as well as private physicians. Other supporting services included mail pick-up and delivery, building maintenance, and janitorial services.

**Personnel**—One Microbiologist III, one Account Clerk II, one Account Clerk I, one Clerk Stenographer II, one Stock Clerk II, one Stock Clerk I, three Laboratory Technician I's, one Bio-Engineering Technician II, one Bio-Engineering Technician I, and five laborers are assigned to this unit of the laboratory.

## Clerical Division

Over 513,947 reports were mailed from the central laboratory in fiscal year 1983. Handling the telephone switchboard, typing and mailing reports, maintaining personnel records, and numerous other clerical functions were carried out by one Clerk IV, one Clerk Stenographer III, two Clerk Typist III's, one Clerk III, one Clerk Stenographer II, and seven Clerk Typist II's. There was a decrease of two employees in the Clerical Division from the previous year.

## MCH/FP Division

The MCH/FP Division began testing specimens from maternal and child health and family planning clinics on October 1, 1983. This division tested blood specimens for syphilis, Rh factor and rubella immune status. Specimens tested are as follows:

| | Number Tested | Number Positive | Percent Positive |
|---|---|---|---|
| Syphilis | 20,929 | 232 | 1 |
| Rh Factor | 11,694 | 8,826 | 75 |
| Rubella (immune status) | 9,665 | 8,149 | 84 |

## Scientific Services Division

**Media**—In addition to preparing 432,000 Modified Thayer-Martin plates (MTM) for use in the statewide gonorrhea screening program, the media laboratory prepared 265 different media, reagents and solutions—which included nine new media and the attendant procedures for their preparation—for use in the central laboratory. The quantity of each follows.

### Media and Reagents

| | |
|---|---|
| Enteric Bacteriology | 852 liters |
| General Bacteriology | 474 liters |
| GC | 7,416 liters |
| Sanitary Bacteriology | 291 liters |
| CF | 33 liters |
| Mycology | 181 liters |
| Regular TB | 940 liters* |
| Special TB | 684 liters |
| Miscellaneous | 76 liters |
| TOTAL VOLUME | 10,947 liters |

*This volume reflects cracking aseptically and straining 396 dozen fresh eggs for use in Lowenstein-Jensen medium and handling 130 pints of blood from expired humans for use in penicillin blood agar.

*Microbiologist James Jones performs hypothyroid testing.*

### Solutions

| | |
|---|---|
| FA | 310 liters |
| Parasitology | 200 liters |
| IFA | 461 liters |
| Milk and Water | 1,222 liters |
| Hypothyroid | 4 liters |
| TOTAL VOLUME | 2,197 liters |

This section also prepared 25,522 sterile milk and water sample bottles for statewide distribution and 5,150 dilution blanks for use in the central laboratory milk testing program.

This section also has responsibility for constantly monitoring and performing routine maintenance on the water purification system for the entire laboratory. This entails 35 filter changes ranging from pool filters and prefilters to reverse osmosis membranes, carbon filters, deionization filters, and 0.45 micron millitube filters. In March the pool filter was replaced by a carbon prefilter which has to be monitored daily to ensure proper chlorine content of the water. Monitoring is necessary for the protection of the RO membranes.

**Washroom**—Approximately 1.5 million pieces of glassware and other equipment were washed, wrapped and sterilized during the year. In addition to decontaminating all specimens delivered by the various sections of the laboratory, this unit sterilized all media and solutions, a procedure involving constant monitoring of the temperature, pressure gauges, and timers of seven autoclaves. The washroom also supplied relief personnel for the animal house.

**Quality Control**—The quality control section tests and evaluates all media and reagents prepared in the laboratory to ensure that they meet specific performance requirements. This section also performs weekly tests on the diagnostic reagents and monthly tests on the typing sera used by general bacteriology. Over 2,350 tests were performed on 785 lots of media for the Bureau of Bacteriology and the Tuberculosis Division, and only seven lots (less than 1 percent) were rejected.

Also 3,120 tests were performed on Thayer-Martin (TM) media. The TM tested included 53 lots prepared for the statewide gonorrhea screening program and seven lots prepared to check new batches of enrichment or inhibitors. Of the TM tested 46 percent was forwarded to CDC for review, and all lots were found acceptable by this section and CDC.

Further this section performed 1,120 tests on reagents and typing sera for the General Bacteriology Division and tested one new brand of currently used media which was found to be inferior to currently used brands and was rejected before being put into use with clinical specimens.

**Personnel**—Scientific Services employed one Microbiologist IV, one Microbiologist III, one Microbiologist II, two Laboratory Technician II's, five Laboratory Technician I's, one Laboratory Aide II and two laborers.

# BUREAU OF BACTERIOLOGY

## General Bacteriology Division

Staffed with three microbiologists, this division served as a statewide reference laboratory for private and hospital laboratories in the identification of bacterial cultures. The following organisms were reported in fiscal year 1983.

| Organisms | Number of Isolates |
|---|---|
| *Achromobacter* species (Vd) | 1 |
| *Achromobacter xylosoxidans* | 3 |
| *Acinetobacter calcoaceticus* var. *anitratus* | 9 |
| *Acinetobacter calcoaceticus* var. *lwoffi* | 22 |
| *Actinobacillus actinomycetemcomitans* | 3 |
| *Actinomyces israelii* | 1 |
| *Aeromonas hydrophila* | 5 |
| *Alcaligenes denitrificans* | 1 |
| *Alcaligenes faecalis* | 3 |
| *Alcaligenes odorans* | 2 |
| *Arachnia propionica* | 1 |
| *Bacillus* species | 11 |
| *Bacillus* sp.—$H_2S$ + biotype 1 *poss. alvei* | 3 |
| *Bacillus* sp.—$H_2S$ + biotype 2 | 1 |
| *Bacillus brevis* | 3 |
| *Bacillus cereus* | 18 |
| *Bacillus circulans* | 6 |
| *Bacillus firmus* | 1 |
| *Bacillus licheniformis* | 2 |
| *Bacillus megaterium* | 5 |
| *Bacillus pumilus* | 3 |
| *Bacillus sphaericus* | 1 |
| *Bacillus subtilis* | 2 |
| *Bacteroides fragilis* | 6 |
| *Bacteroides oralis* | 2 |
| *Bacteroides ureolyticus* | 2 |
| *Bifidobacterium* species | 1 |
| *Bifidobacterium eriksonii* | 2 |
| *Bordetella bronchiseptica* | 1 |
| *Bordetella parapertussis* | 1 |
| *Branhamella catarrhalis* | 16 |
| *Brevibacterium acetylicum* | 1 |
| *Brucella abortus* | 1 |
| *Brucella suis* | 1 |
| *Campylobacter* species (NARTC)<br>(Nalixidic Acid Resistant Thermophilic *Campylobacter*) | 1 |
| *Campylobacter jejuni* | 30 |
| *Cardiobacterium hominis* | 1 |
| *Chromobacterium violaceum* | 1 |
| *Citrobacter diversus* | 4 |
| *Citrobacter freundii* | 4 |
| *Clostridium difficile* | 1 |
| *Clostridium perfringens* | 7 |
| *Clostridium septicum* | 1 |
| *Clostridium sphenoides* | 1 |
| *Clostridium subterminale* | 2 |
| *Clostridium tertium* | 2 |
| *Corynebacterium* species | 10 |
| *Corynebacterium* Group A-5 | 2 |
| *Corynebacterium* Group ANF-1 | 3 |
| *Corynebacterium* Group ANF-3 | 1 |
| *Corynebecterium* Group B-3 | 2 |
| *Corynebacterium* Group D-2 | 1 |
| *Corynebacterium* Group E | 6 |
| *Corynebacterium* Group F-1 | 1 |
| *Corynebacterium* Group F-2 | 1 |
| *Corynebacterium* Group I-2 | 1 |
| *Corynebacterium* Group J-K | 4 |
| *Corynebacterium minutissimum* | 6 |
| *Corynebacterium striatum* | 1 |
| DF-2 | 2 |
| DF-3 | 1 |
| EO-2 | 1 |
| *Edwardsiella tarda* | 2 |
| *Eikenella corrodens* | 14 |
| *Enterobacter* species | 1 |
| *Enterobacter aerogenes* | 2 |
| *Enterobacter agglomerans* | 5 |
| *Enterobacter cloacae* | 5 |
| *Escherichia coli* | 20 |
| *Escherichia coli*—inactive | 1 |
| *Escherichia fergusonii* | 1 |
| *Eubacterium alactolyticum* | 2 |
| *Flavobacterium* species—Group II-B | 1 |
| *Flavobacterium meningosepticum* | 1 |
| *Flavobacterium odoratum* | 4 |
| *Fusobacterium* species | 1 |
| *Fusobacterium necrophorum* | 1 |
| *Fusobacterium nucleatum* | 3 |
| *Gardnerella vaginalis* | 22 |
| Group II-F | 1 |
| Group IV-C (2) | 3 |
| Group IV-E | 1 |
| *Haemophilus* species | 2 |
| *Haemophilus aphrophilus* | 7 |
| *Haemophilus hemolyticus* | 1 |
| *Haemophilus influenzae*—biotype III | 1 |
| *Haemophilus influenzae*—unable to type | 15 |
| *Haemophilus influenzae*—Type B | 9 |
| *Haemophilus parainfluenzae* | 20 |
| *Haemophilus paraphrophilus* | 5 |
| *Klebsiella ozaenae* | 1 |
| *Lactobacillus* species | 7 |
| *Listeria monocytogenes* | 4 |
| M-5 | 1 |
| M-6 | 1 |
| *Micrococcus* species | 1 |
| *Micrococcus mucinolaginosus* | 1 |
| *Moraxella* species | 3 |
| *Moraxella atlantae* | 1 |
| *Moraxella nonliquefaciens* | 5 |
| *Moraxella phenylpyruvica* | 3 |

| | |
|---|---|
| *Moraxella urethralis* | 2 |
| *Morganella morganii* | 1 |
| *Mycobacterium rhodochrous* complex | 3 |
| *Neisseria* species | 2 |
| *Neisseria gonorrhoeae* | 103 |
| *Neisseria lactamica* | 1 |
| *Neisseria meningitidis*—unable to type | 8 |
| *Neisseria meningitidis*—Group A | 2 |
| *Neisseria meningitidis*—Group B | 22 |
| *Neisseria meningitidis*—Group C | 8 |
| *Neisseria meningitidis*—Group D | 1 |
| *Neisseria meningitidis*—Slaterus Y | 3 |
| *Neisseria meningitidis*— W135 | 5 |
| *Neisseria sicca* | 2 |
| *Neisseria subflava* | 3 |
| *Pasteurella* n. sp. 1 or "gas" | 2 |
| *Pasteurella gallinarum* | 2 |
| *Pasteurella haemolytica* | 1 |
| *Pasteurella multocida* | 6 |
| *Pasteurella ureae* | 1 |
| *Peptococcus magnas* | 1 |
| *Peptococcus prevotii* | 4 |
| *Peptostreptococcus anaerobius* | 2 |
| *Peptostreptococcus intermedius* | 1 |
| *Plesiomonas shigelloides* | 2 |
| *Propionibacterium acnes* | 8 |
| *Propionibacterium freudenreichii ssp. shermanii* | 1 |
| *Propionibacterium granulosum* | 2 |
| *Proteus vulgaris* | 1 |
| *Providencia* species | 1 |
| *Pseudomonas* species | 10 |
| *Pseudomonas acidovorans* | 1 |
| *Pseudomonas aeruginosa* | 5 |
| *Pseudomonas alcaligenes* | 2 |
| *Pseudomonas cepacia* | 2 |
| *Pseudomonas fluorescens* | 2 |
| *Pseudomonas maltophilia* | 4 |
| *Pseudomonas mesophilica* | 1 |
| *Pseudomonas paucimobilis* | 6 |
| *Pseudomonas pickettii* | 2 |
| *Pseudomonas stutzeri* | 2 |
| *Pseudomonas testosteroni* | 1 |
| *Pseudomonas vesicularis* | 4 |
| *Rothia dentocariosa* | 2 |
| *Salmonella* serotype *java* | 1 |
| *Salmonella* serotype *mississippi* | 1 |
| *Sarcina* | 1 |
| *Serratia marcescens* | 1 |
| *Serratia odorifera* | 1 |
| *Shigella sonnei* | 2 |
| *Staphylococcus*—coagulase negative | 11 |
| *Staphylococcus epidermidis* | 2 |
| *Streptococcus*—Group B | 1 |
| *Streptococcus*—Group C | 2 |
| *Streptococcus*—Group D (Enterococcus) | 6 |
| *Streptococcus*—Group F | 4 |
| *Streptococcus*—Group G | 1 |
| *Streptococcus anginosus-constellatus* | 1 |
| *Streptococcus mitis* | 3 |
| *Streptococcus* MG—*intermedius* | 5 |
| *Streptococcus morbillorium* | 1 |
| *Streptococcus mutans* | 3 |
| *Streptococcus pneumoniae* | 1 |
| *Streptococcus salivarius* | 1 |
| *Streptococcus sanguis* II | 3 |
| *Streptococcus uberis* | 2 |
| VA-1 | 1 |
| VE-1 | 1 |
| VE-2 | 1 |
| *Vibrio cholerae*—(other O Group) | 1 |
| *Vibrio parahaemolyticus* | 1 |
| *Vibrio vulnificus* | 1 |
| *Yersinia enterocolitica* | 7 |
| Serums—*Clostridium botulinum* toxicity | 3 |
| Stools—*Clostridium botulinum* toxicity | 3 |
| Unable to identify | 1 |

In addition to these organisms, the General Bacteriology Division cultured a variety of clinical specimens. This section received 24 specimens for legionella, three specimens for brucella, four specimens for diphtheria, 51 specimens for staphylococci and 71 specimens for *Bordetella pertussis.* Of these, 32 of the staphylococci were positive, and eight of the *B. pertussis* were positive. Four *B. pertussis* positives were isolated by cultures, and four were reported by direct fluorescent antibody (FA) procedure.

*Reading a bacteriology culture.*

## Enteric Bacteriology Division

During the 1983 fiscal year, a 78 percent increase in routine examinations was recorded. Along with 759 isolated cultures referred from hospital and private laboratories for confirmation or identification, 3,429 routine specimens were screened.

The following enteric pathogens were isolated and serotyped.

*Salmonella enteritidis*-serotype

| | |
|---|---|
| Agona | 41 |
| Anatum | 1 |
| Atlanta | 1 |
| Bareilly | 9 |
| Berta | 1 |
| Blockley | 5 |
| Braenderup | 10 |
| Cairo | 2 |
| Cerro | 1 |
| Coelin | 2 |
| Derby | 11 |
| Djugu (Mbandaka) | 7 |
| Enteritidis | 11 |
| Fayed | 1 |
| Give | 5 |
| Glostrup | 1 |
| Hadar | 26 |
| Hartford | 1 |
| Hato | 1 |
| Heidelberg | 124 |
| Indiana | 8 |
| Infantis | 50 |
| Inverness | 6 |
| Irumu | 3 |
| Java | 17 |
| Javiana | 43 |
| Kentucky | 5 |
| Kiambu | 1 |
| Litchfield | 11 |
| Lomita | 1 |
| London | 1 |
| Madelia | 2 |
| Manhattan | 5 |
| Mbandaka | 4 |
| Mississippi | 9 |
| Mikawasima | 1 |
| Montevideo | 14 |
| Muenchen | 21 |
| Ness-ziona | 3 |
| New Brunswick | 3 |
| Newport | 50 |
| Norwich | 2 |
| Ohio | 1 |
| Oranienburg | 37 |
| Panama | 2 |
| Poona | 2 |
| Praha | 9 |
| Rubislaw | 3 |
| Saint Paul | 12 |
| Salmonella species | 114 |
| San Diego | 1 |
| Schwarzengrund | 5 |
| Senftenberg | 2 |
| Sundsvall | 1 |
| Thompson | 10 |
| Typhi | 4 |
| Typhimurium | 262 |
| Typhimurium var. copenhagen | 33 |
| Uzaramo | 8 |
| Wein | 1 |
| Worthington | 2 |
| TOTAL | 1,030 |

| | |
|---|---|
| Shigella total | 95 |

*Evaluation of gonozyme procedure.*

## Gonorrhea Division

The central laboratory screened 63,964 cultures for *Neisseria gonorrhoeae* and found 4,579 positive (7.2 percent). All positive cultures were tested for beta lactamase production; and 90 penicillin resistant cultures were detected, an increase of 29 cases over fiscal year 1982.

## Rabies Division

The central laboratory received 1,092 specimens for rabies examination during fiscal year 1983. The 49 positive cases found were 50 cases fewer than in 1982. The following species of animals were reported as positives for rabies.

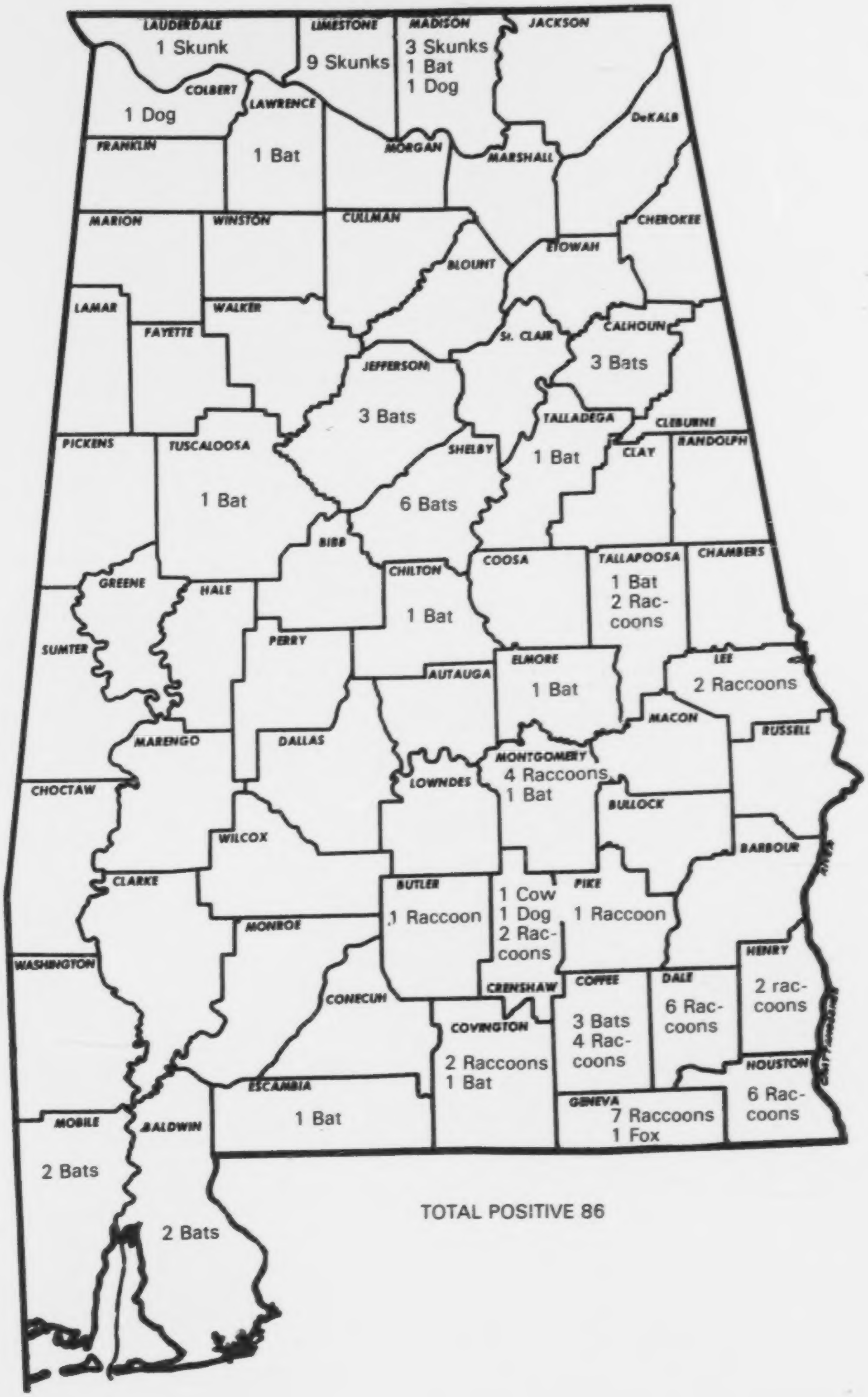
| | |
|---|---|
| Raccoons | 39 |
| Bats | 7 |
| Dog | 1 |
| Fox | 1 |
| Bovine | 1 |
| TOTAL | 49 |

Table 4-1 and Chart 4-1 report the cases of rabies in each county and identify the species.

# TABLE 4-1
# POSITIVE RABIES
# FISCAL YEAR 1983

| Counties | October | November | December | January | February | March | April | May | June | July | August | September | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autauga | | | | | | | | | | | | | |
| Baldwin | | | | | | | | | | | | 2 Bats | 2 |
| Barbour | | | | | | | | | | | | | |
| Bibb | | | | | | | | | | | | | |
| Blount | | | | | | | | | | | | | |
| Bullock | | | | | | | | | | | | | |
| Butler | | | | | 1 Raccoon | | | | | | | | 1 |
| Calhoun | | 1 Bat | | | | | | | | | 1 Bat | 1 Bat | 3 |
| Chambers | | | | | | | | | | | | | |
| Cherokee | | | | | | | | | | | | | |
| Chilton | | | | | | | | | 1 Bat | | | | 1 |
| Choctaw | | | | | | | | | | | | | |
| Clarke | | | | | | | | | | | | | |
| Clay | | | | | | | | | | | | | |
| Cleburne | | | | | | | | | | | | | |
| Coffee | | 1 Bat | 1 Bat<br>1 Raccoon | | | | | 1 Raccoon | 1 Raccoon | | 1 Bat | 1 Raccoon | 7 |
| Colbert | | 1 Dog | | | | | | | | | | | 1 |
| Conecuh | | | | | | | | | | | | | |
| Coosa | | | | | | | | | | | | | |
| Covington | | | | | | 1 Raccoon | | | | 1 Raccoon | | 1 Bat | 3 |
| Crenshaw | | | | 1 Dog | | | 1 Raccoon | | | | 1 Raccoon | 1 Cow | 4 |
| Cullman | | | | | | | | | | | | | |
| Dale | | | | | | | 2 Raccoons | | | | 2 Raccoons | 2 Raccoons | 6 |
| Dallas | | | | | | | | | | | | | |
| DeKalb | | | | | | | | | | | | | |
| Elmore | | | | | | | | | | | | 1 Bat | 1 |
| Escambia | | | | | | | | | | | | 1 Bat | 1 |
| Etowah | | | | | | | | | | | | | |
| Fayette | | | | | | | | | | | | | |
| Franklin | | | | | | | | | | | | | |
| Geneva | | 4 Raccoons | | 1 Raccoon | | 1 Fox<br>1 Raccoon | | | | | | 1 Raccoon | 8 |
| Greene | | | | | | | | | | | | | |
| Hale | | | | | | | | | | | | | |
| Henry | | | | | | | | | 2 Racoons | | | | 2 |
| Houston | 1 Raccoon | | | | 1 Raccoon | | | 1 Raccoon | 1 Raccoon | | 2 Raccoons | | 6 |
| Jackson | | | | | | | | | | | | | |
| Jefferson | | | | | | | | 2 Bats | | | 1 Bat | | 3 |
| Lamar | | | | | | | | | | | | | |
| Lauderdale | | | | | | | | 1 Skunk | | | | | 1 |
| Lawrence | | | | | | | | | | | | 1 Bat | 1 |
| Lee | | 1 Raccoon | | | | | 1 Raccoon | | | | | | 2 |
| Limestone | | 4 Skunks | 1 Skunk | 1 Shunk | 1 Skunk | 1 Skunk | | | 1 Skunk | | | | 9 |
| Lowndes | | | | | | | | | | | | | |
| Macon | | | | | | | | | | | | | |
| Madison | 1 Bat | | | | 1 Dog | 1 Skunk | | | | 1 Skunk | 1 Skunk | | 5 |
| Marengo | | | | | | | | | | | | | |
| Marion | | | | | | | | | | | | | |
| Marshall | | | | | | | | | | | | | |
| Mobile | | | | | | | | 1 Bat | | | | 1 Bat | 2 |
| Monroe | | | | | | | | | | | | | |
| Montgomery | | | | | | 1 Raccoon | | | | 1 Bat<br>1 Raccoon | 2 Raccoons | | 5 |
| Morgan | | | | | | | | | | | | | |
| Perry | | | | | | | | | | | | | |
| Pickens | | | | | | | | | | | | | |
| Pike | | | | | | | 1 Raccoon | | | | | | 1 |
| Randolph | | | | | | | | | | | | | |
| Russell | | | | | | | | | | | | | |
| St. Clair | | | | | | | | | | | | | |
| Shelby | | | | | | | | | | | 2 Bats | 4 Bats | 6 |
| Sumter | | | | | | | | | | | | | |
| Talladega | | | | | | | | 1 Bat | | | | | 1 |
| Tallapoosa | | | | | | | 1 Raccoon | 1 Raccoon | | | 1 Bat | | 3 |
| Tuscaloosa | | | | | | | | | | | | 1 Bat | 1 |
| Walker | | | | | | | | | | | | | |
| Washington | | | | | | | | | | | | | |
| Wilcox | | | | | | | | | | | | | |
| Winston | | | | | | | | | | | | | |
| TOTAL | 2 | 12 | 3 | 3 | 4 | 6 | 6 | 8 | 6 | 4 | 14 | 18 | 86 |

## CHART 4-1
## POSITIVE RABIES MAP
## FISCAL YEAR 1983


LAUDERDALE
1 Skunk
LIMESTONE
9 Skunks
MADISON
3 Skunks
1 Bat
1 Dog
JACKSON
COLBERT
1 Dog
LAWRENCE
1 Bat
DeKALB
FRANKLIN
MORGAN
MARSHALL
MARION
WINSTON
CULLMAN
CHEROKEE
ETOWAH
BLOUNT
LAMAR
WALKER
FAYETTE
St. CLAIR
CALHOUN
3 Bats
JEFFERSON
3 Bats
TALLADEGA
1 Bat
CLEBURNE
PICKENS
TUSCALOOSA
1 Bat
SHELBY
6 Bats
CLAY
RANDOLPH
BIBB
CHILTON
1 Bat
COOSA
TALLAPOOSA
1 Bat
2 Rac-
coons
CHAMBERS
GREENE
HALE
PERRY
SUMTER
AUTAUGA
ELMORE
1 Bat
LEE
2 Raccoons
MACON
RUSSELL
MARENGO
DALLAS
MONTGOMERY
4 Raccoons
1 Bat
LOWNDES
CHOCTAW
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
1 Raccoon
1 Cow
1 Dog
2 Rac-
coons
PIKE
1 Raccoon
MONROE
WASHINGTON
CRENSHAW
COFFEE
3 Bats
4 Rac-
coons
DALE
6 Rac-
coons
HENRY
2 rac-
coons
CONECUH
COVINGTON
2 Raccoons
1 Bat
HOUSTON
6 Rac-
coons
ESCAMBIA
1 Bat
GENEVA
7 Raccoons
1 Fox
MOBILE
2 Bats
BALDWIN
2 Bats

TOTAL POSITIVE 86

## Sanitary Bacteriology Division

**Food Bacteriology**—The presence of bacteria associated with foodborne illness was found in 12 of 227 food samples submitted for examination. The bacteria recovered and food sources were:

| Organism | Food |
|---|---|
| *Bacillus cereus* | french vanilla Cambridge Diet (1); dutch chocolate Cambridge Diet (1); weiners (1); chocolate milk (1); 2% milk (1); roll (1); barbecue pork (1); shrimp and rice (1); mixture of rice, peas, onions, eggs and carrots (2) |
| *Clostridium perfringens* | turkey and dressing |
| *Salmonella newport* | turkey |

**Water Bacteriology**—During fiscal year 1983, 17,357 samples were processed by the central laboratory, and 1,443 (8.3 percent) had coliform counts indicating possible contamination.

**Dairy Bacteriology**—Nearly 16,000 tests were performed on 4,008 milk and dairy samples received during the year, and 812 samples failed to meet one or more of the acceptable standards.

## Parasitology Division

A total of 14,947 samples was submitted for examination during the 1983 fiscal year, with 1,698 positive results reported. The following intestinal parasites were identified:

| | |
|---|---|
| Hookworm | 123 |
| *Ascaris lumbricoides* | 139 |
| *Enterobius vermicularis* (Pinworm) | 128 |
| *Trichuris trichiura* | 32 |
| *Strongyloides stercoralis* | 34 |
| *Hymenolepis nana* | 27 |
| *Entamoeba coli* | 374 |
| *Endolimax nana* | 352 |
| *Giardia lamblia* | 858 |
| *Entamoeba hartmanni* | 89 |
| *Entamoeba histolytica* | 30 |
| *Chilomastix mesnili* | 3 |
| *Iodamoeba butschlii* | 27 |
| TOTAL | 2,216 |

Seven smears were submitted for malaria examination. Six were positive for *Plasmodium falciparum* and one for *Plasmodium vivax.*

*In May 1983 the Centers for Disease Control taught a one week course in intestinal protozoa at the central laboratory. Fourteen participants from all areas of the state attended.*

**Other Activities**—The Bureau of Bacteriology participated in proficiency testing programs. The Centers for Disease Control provided check samples to the Parasitology Division, General Bacteriology Division and Enteric Bacteriology Division. The Gonorrhea Culture Division served as a reference laboratory for the Tennessee State Health Department and the Centers for Disease Control. The Sanitary Bacteriology Division received check specimens from the state laboratory dairy and water evaluation officer and from the Food and Drug Administration. The Rabies Division received check samples from the Centers for Disease Control, and the central laboratory provided proficiency testing for the branch laboratories.

### TABLE 4-2
### SYPHILIS EXAMINATIONS
### 1983

| VDRL Slide Test | Specimens | Reactives | Examinations | Percent Reactive |
|---|---|---|---|---|
| Routine | 42,948 | 4,280 | 49,303 | 9.9 |
| Premarital | 8,430 | 111 | 8,719 | 1.3 |
| Spinal Fluids | 1,361 | 1 | 1,362 | |

## BUREAU OF SEROLOGY

### Syphilis Serology Division

The Syphilis Serology Division performed 59,384 examinations on 52,739 specimens utilizing the VDRL slide agglutination test. The results of these examinations are listed in Table 4-2.

Control serums were furnished to branch and clinical laboratories on request. In addition quality control testing was performed on reagents before distribution to branch laboratories.

A decrease in the number of specimens was experienced due to specimens from maternal and child health clinics and family planning clinics being tested in another division of the laboratory.

Eight samples received from CDC as part of a proficiency testing program achieved 100 percent agreement.

**Bacterial Agglutination Tests**—A tube agglutination test for tularemia was performed on 80 specimens. A tube agglutination test for brucella was also performed on 77 of these specimens. In addition 18 specimens were forwarded to Auburn for *Brucella canis* testing. Five specimens were positive for *Brucella abortus,* and five specimens were positive for tularemia.

Bacterial agglutination tests were performed on four specimens from CDC as part of the proficiency testing (general immunology) programs. Precision results were 100 percent.

**Premarital Approval and Proficiency Testing**—All laboratories performing premarital blood test for syphilis were proficiency tested for certification. The central laboratory administered a quality control program for 104 Red Cross, blood banking and clinical laboratories performing these tests. Also laboratories licensed by the Clinical Laboratories Improvement Act (CLIA) to perform syphilis serology on an interstate basis were evaluated during the year.

Quality control was accomplished by:

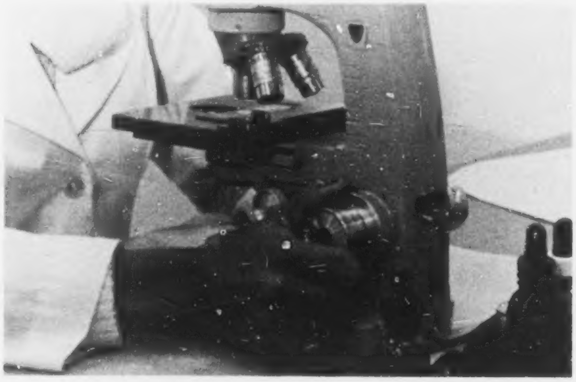
1. Sending ten prepared serum specimens of graded reactivity five times a year.
2. Evaluating and reporting results.
3. Inspecting each laboratory at least once every two years and more often if needed.
4. Consulting with laboratory personnel.
5. Training when a refresher course is indicated.

Adequacy of test performance was determined by the average disagreement of no more than 10 percent and at least a 90 percent reproducibility on paired serums.

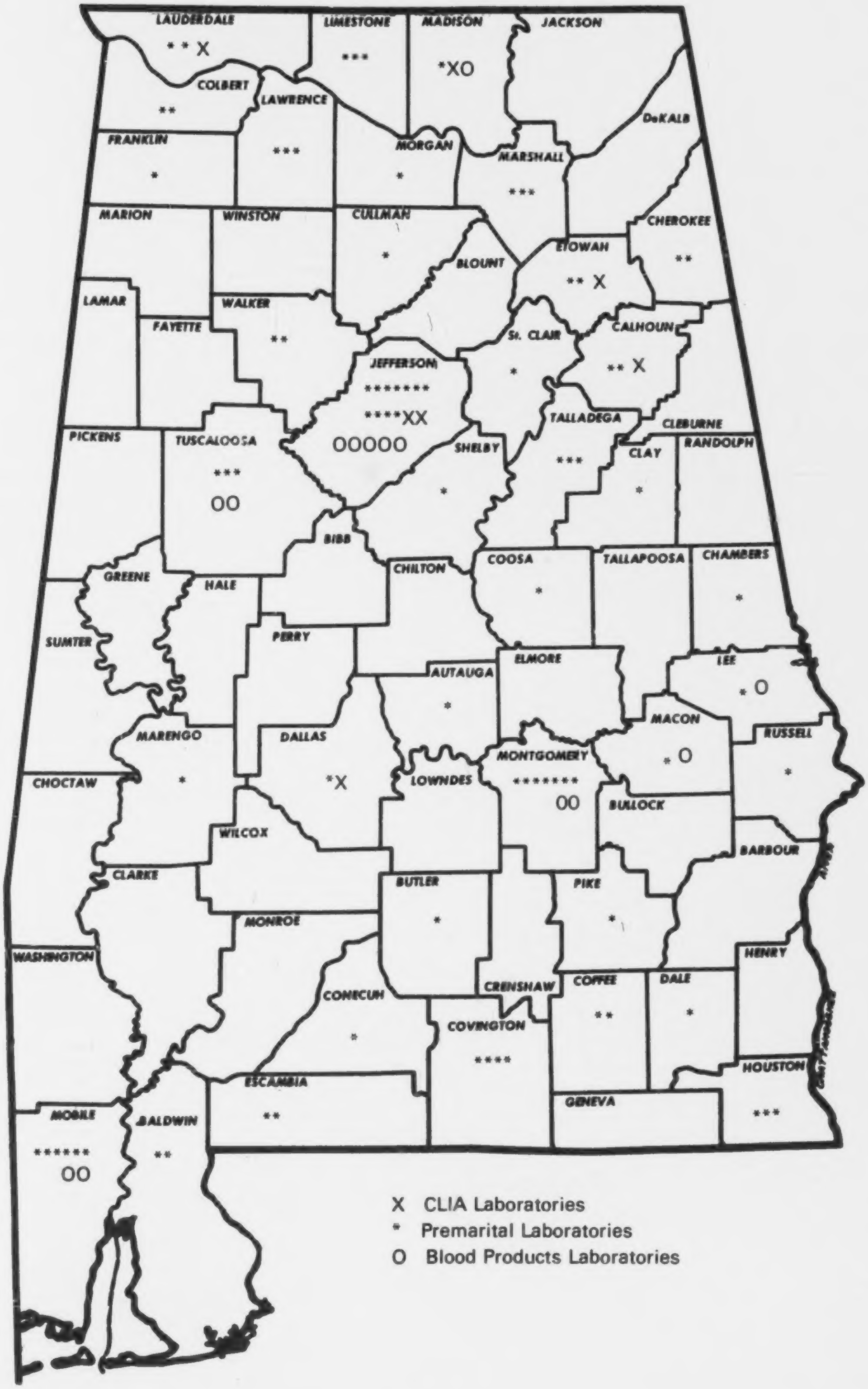
Chart 4-2 shows the distribution of laboratories certified in syphilis serology.

The Alabama Board of Medical Technician Examiners was abolished, and new criteria were established for those desiring to become approved for performing premarital blood testing. The new regulations are as follows:

1. A completed application form must be returned to the Clinical Laboratory Administration. This application will be reviewed by the Bureau of Licensure and Certification.
2. The applying person must fulfill the requirements of a technologist as stated on page 9, section C, paragraph 303.1 in *Rules, Regulations and Standards: Independent Clinical Laboratories,* adopted October 15, 1975, by the Alabama State Board of Health.
3. The Bureau of Licensure and Certification notifies the Clinical Laboratory Administration of the person's eligibility as a technologist.
4. A set of check specimens consisting of ten serum samples is mailed to the applying technologist; and after the Clinical Laboratory Administration receives these results, a second set is mailed.
5. If results on these samples show an average deviation of 10.0 percent or less, approval will be granted. Probate judges will be notified, and a supply of premarital certificates will be furnished.



## CHART 4-2
## SYPHILIS SEROLOGY CERTIFIED LABORATORIES
## 1983


LAUDERDALE
* * X
LIMESTONE
***
MADISON
*XO
JACKSON
COLBERT
**
LAWRENCE
***
DeKALB
FRANKLIN
*
MORGAN
*
MARSHALL
***
MARION
WINSTON
CULLMAN
*
CHEROKEE
**
ETOWAH
** X
BLOUNT
LAMAR
WALKER
**
FAYETTE
ST. CLAIR
*
CALHOUN
** X
JEFFERSON
*******
****XX
OOOOO
TALLADEGA
***
CLEBURNE
PICKENS
TUSCALOOSA
***
OO
SHELBY
*
CLAY
*
RANDOLPH
BIBB
CHILTON
COOSA
*
TALLAPOOSA
CHAMBERS
*
GREENE
HALE
SUMTER
PERRY
AUTAUGA
*
ELMORE
LEE
* O
MACON
* O
MARENGO
*
DALLAS
*X
MONTGOMERY
*******
OO
RUSSELL
*
CHOCTAW
LOWNDES
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
*
PIKE
*
MONROE
WASHINGTON
HENRY
CONECUH
*
CRENSHAW
COFFEE
**
DALE
*
COVINGTON
****
ESCAMBIA
**
GENEVA
HOUSTON
***
MOBILE
******
OO
BALDWIN
**
X CLIA Laboratories
* Premarital Laboratories
O Blood Products Laboratories

## Special Serology Division

**Complement Fixation Tests (Fungal)**—A complement fixation test for histoplasmosis (both mycelial and yeast phases), blastomycosis and coccidioidomycosis was performed on 1,593 specimens. Those showing a titer of 1:8 or above were:

*Histoplasma capsulatum*

| Mycelial | Yeast | Both |
|---|---|---|
| 2 | 230 | 21 |

*Blastomyces dermatitidis*
27

*Coccidioides immitis*
3

*B. dermatitidis & H. capsulatum*
68

*C. immitis & H. capsulatum*
1

*B. dermatitidis & C. immitis & H. capsulatum*
9

Unsatisfactory
70

**Microimmunodiffusion Tests**—During 1983 microimmunodiffusion testing was performed on 1,593 sera for histoplasmosis and blastomycosis. From these the following bands were produced:

**Histoplasmosis**

| | |
|---|---|
| M Band | 201 |
| H Band | 7 |
| M & H Band | 38 |

**Blastomycosis**

| | |
|---|---|
| A Band | 46 |

Aspergillosis testing was performed on 402 sera by this same method. Twenty-five specimens gave a positive reaction to one or more of the species listed below.

| **Aspergillus Species** | **Positives*** |
|---|---|
| *Aspergillus flavus* | 10 |
| *Aspergillus niger* | 12 |
| *Aspergillus fumigatus* | 17 |

*Nine specimens were positive to more than one species.

**Complement Fixation Tests (Viral)**—Paired serums for antibodies to respiratory, neurotropic, enteric and exanthem viruses, rickettsia and chlamydia totaled 1,399. Results interpreted as compatible with recent infection (specimens showing a four-fold or greater rise in titer of the convalescent specimen over the acute specimen) were:

| | |
|---|---|
| Influenza (Type A) | 33 |
| Influenza (Type B) | 9 |
| Adenovirus | 7 |
| *Mycoplasma pneumoniae* | 59 |
| *Chlamydia* group | 15 |
| *Herpes hominis* group | 33 |
| Q Fever | 1 |
| Mumps viral | 7 |
| Spotted Fever group | 10 |
| Varicella | 4 |
| Cytomegalovirus | 6 |
| Rubeola virus | 4 |
| Lymphocytic Choriomeningitis | 1 |
| TOTAL | 189 |

Negative results were obtained on 240 paired serums, and 42 pairs were unsatisfactory.

Results suggesting involvement at some undetermined time but not necessarily in the current illness were:

| | |
|---|---|
| Influenza A | 379 |
| Influenza B | 227 |
| Adenovirus group | 222 |
| *Mycoplasma pneumoniae* | 529 |
| *Chlamydia* | 57 |
| Respiratory Syncytial | 7 |
| Parainfluenzae Type 1 | 1 |
| Parainfluenzae Type 2 | 2 |
| Parainfluenzae Type 3 | 6 |
| Western equine encephalitis | 1 |
| California encephalitis | 1 |
| Mumps viral | 154 |
| Murine Typhus | 3 |
| Spotted Fever group | 5 |
| Q Fever | 1 |
| Polio Type I | 7 |
| Polio Type III | 1 |
| Rubeola | 43 |
| Varicella | 29 |
| Cytomegalovirus | 126 |
| *Herpes hominis* | 303 |
| TOTAL | 2,104 |

Specimens received for viral and rickettsial serology were tested against batteries of antigens. Examinations totaled 14,812.

Upon special request 254 single specimens were tested. However, since no interpretation of the results of a single specimen can be made, titers only were reported.

Eight samples received from the Centers for Disease Control as a part of a viral and fungal proficiency testing program achieved 100 percent agreement and reproducibility.

**Hemagglutination Tests**—The hemagglutination inhibition (HAI) test for rubella antibodies was performed on 2,952 sera to determine immune status. HAI for diagnostic purposes was performed on 314 specimens. Paired sera from one patient showed a four-fold or greater rise in titer.

The rubella hemagglutination inhibition procedure was performed on four proficiency testing specimens provided by CDC. Results obtained were 100 percent in agreement and reproducibility.

From October through December 1982, the indirect hemagglutination test for amebiasis was performed on 69 specimens. Negative results were obtained on all 69 sera. As of January 1983, amebiasis requests were forwarded to CDC for testing.

All serum specimens referred to CDC by the central laboratory were received, processed, and forwarded by the special serology section.

## Indirect Fluorescent Antibody (IFA) Division

**Fluorescent Microscopy**—The Fluorescent Treponemal Antibody-Absorption (FTA-ABS) test for syphilis was performed on all specimens found to be nonreactive with the microhemagglutination assay for antibodies to *Treponema pallidum.* There were 1,217 specimens examined using the FTA-ABS test with the following results:

| | |
|---|---|
| Reactive | 105 |
| Nonreactive | 1,076 |
| Borderline | 35 |
| Unsatisfactory | 1 |

The indirect immunofluorescence test was employed for the detection of antibodies to *Toxoplasma gondii.* Of the 862 specimens tested, titers of 1:16 or greater were obtained on 221 with 93 of these titering 1:256 or greater. Fourteen serum specimens were submitted to the Centers for Disease Control to be tested for IgM antibodies to *T. gondii.*

The indirect immunofluorescence test was also used to detect antibodies to *Legionella pneumophila.* Of the 511 specimens tested, 17 specimens titered 1:256 or greater, providing presumptive evidence of infection at an undetermined time. Paired sera from six patients demonstrated a four-fold or greater rise in titer, showing evidence of a recent infection.

## Metabolic Division

**PKU Screening**—A total of 99,786 blood specimens was tested for phenylalanine levels. The specimens are categorized below.

| | |
|---|---|
| Newborn (White) | 31,608 |
| Newborn (Black) | 17,767 |
| Four-week (White) | 33,204 |
| Four-week (Black) | 16,439 |
| Older Children | 11 |
| Maternal | 0 |
| Center for Developmental and Learning Disorders | 3 |
| Miscellaneous | 28 |
| REPEATS: | |
| Inadequate bloods | 8 |
| Upper limits of normal | 262 |
| Feeding less than 24 hours | 74 |
| Slight transient elevations | 87 |
| Dietary follow-up | 295 |
| TOTAL | 99,786 |

One PKU positive was detected during fiscal year 1983. The cumulative total of positives since the program began in 1964 is as follows:

| | |
|---|---|
| Newborn (White) | 44 |
| Newborn (Black) | 2 |
| Four-week (White) First Test | 2* |
| Older Children | 5 |
| Partlow (New Admissions) | 3 |
| TOTAL | 56 |

*A six week old infant tested for first time by the Clinical Laboratory Administration is included in this figure.

**PKU Chemistry**—Chemical determinations were made as follows:

| | |
|---|---|
| Nitroprusside test for cystinuria and homocystinuria (Urine specimens) | 3 |
| Chromatography (Sulfanilic acid stained for histidine and urinary metabolites-urine specimens) | 3 |
| Chromatography (Ninhydrin stained for amino acid disorders-blood and urine specimens) | 339 |

A total of 345 tests for amino acids was performed on 113 blood and urine specimens which physicians throughout the state submitted.

**Neonatal Hypothyroid Screening**—The results of the statewide Neonatal Hypothyroid Screening Program for fiscal year 1983 are shown in Table 4-3. Table 4-4 reports the newborns tested since the program began.

### TABLE 4-3
### NEONATAL HYPOTHYROID SCREENING
### FISCAL YEAR 1983

| $T_4$ (Thyroxine Level) Specimens | Number Tested | Examinations | Cases Detected |
|---|---|---|---|
| Newborn (White) | 31,607 | 37,126 | 4 |
| Newborn (Black) | 17,779 | 20,818 | 0 |
| Four-week (White) | 31,481 | 38,976 | 2 |
| Four-week (Black) | 17,707 | 18,405 | 1 |
| Low $T_4$ Repeats | | 333 | |
| TSH (Thyroid Stimulating Hormone) | | 22,988 | |
| TOTAL | 98,574 | 138,646 | 7 |

### TABLE 4-4
### NEWBORNS TESTED
### 1978-1983

| Year | Newborns | Cases Detected | Incidence |
|---|---|---|---|
| 1978 | 38,695 | 4 | 1/9,673 |
| 1979 | 50,834 | 10 | 1/5,083 |
| 1980 | 51,122 | 10* | 1/5,112 |
| 1981‡ | 50,312 | 13 | 1/3,870 |
| 1982 | 49,775 | 11 | 1/4,525 |
| 1983 | 49,386 | 7 | 1/7,054 |
| TOTAL | 290,124 | 55 | 1/5,275 |

*Indicates one infant with transient hypothyroidism.
‡Statistics began on a fiscal year basis.

**Abnormal Hemoglobin Screening (Including Sickle Cell Anemia)**—Electrophoresis was used to test 42,758 specimens for abnormal hemoglobins. The results were:

| | |
|---|---|
| AA | 37,363 |
| AS | 3,417 |
| AC | 984 |
| SS | 29 |
| SF | 33 |
| SC | 43 |
| AF | 530 |
| A high F | 158 |
| FA | 2 |
| FS | 2 |
| CC | 7 |
| AG Philadelphia | 12 |
| AE | 29 |
| Non S | 34 |
| Non C | 5 |
| EE | 3 |
| AO Arab | 1 |
| AN Baltimore | 2 |
| AEF | 2 |
| EF | 1 |
| A + fast mover | 12 |
| AFG Georgia | 2 |
| AF + Alpha chain varient | 1 |
| AFS | 3 |
| AD Ibadan | 1 |
| AI | 1 |
| SA Non C | 1 |
| AS Non C | 1 |
| AFC | 1 |
| Thalassemias: | |
| A + high $A_2$ | 10 |
| SAF | 7 |
| SA | 14 |
| CA | 1 |
| SFA | 9 |
| AF + high $A_2$ | 2 |
| FA | 5 |
| FF | 1 |
| CAF | 2 |
| FS | 5 |
| FAS | 3 |
| FAC | 1 |
| FE | 1 |
| Repeats | 17 |
| TOTAL | 42,758 |

In addition 129 unsatisfactory specimens were received. Electrophoresis at an acid pH was performed on 5,395 specimens to distinguish other abnormal hemoglobins having the same mobilities as S and C at an alkaline pH. Polypeptide chain involvement was determined by globin chain electrophoresis on 62 specimens.

**Other Activities**—The Bureau of Serology continued to evaluate new test procedures as they became available. Among these were enzyme linked immunosorben assay (ELISA) procedures for rubella, toxoplasmosis and syphilis; indirect fluorescent antibody (IFA) procedures for toxoplasmosis; and hemagglutination treponema test for syphilis (HATTS). This bureau also participated in an evaluation of an ELISA procedure for the detection of *Neisseria gonorrhoeae*. Approximately 1,000 specimens were tested in parallel with the existing culture method.

Specimens submitted by Maternal and Child Health/Family Planning Program clinics for rubella, Rh factor and syphilis testing were forwarded to the MCH/FP testing laboratory.

Testing for abnormal hemoglobins was limited to specimens received from county health departments because of a reduction in funds. However this testing was reinstated at the beginning of the 1984 fiscal year.

The Bureau of Serology continued to serve as a reference laboratory for CDC and the states of Florida, Tennessee, Kentucky, Missouri, North Carolina and Oklahoma for the Rapid Plasma Reagin (18mm circle) card test (RPR), the VDRL slide agglutination test, the FTA-ABS test and the microhemagglutination assay for *Treponema pallidum* (MHA-TP). This bureau served as a reference laboratory for CDC for hemoglobinopathies, rubella and febrile agglutinations.

**Personnel**—Six Microbiologist III's, eight Microbiologist II's, four Microbiologist I's, one Laboratory Technician II and one Laboratory Technician I staffed this bureau.

## BUREAU OF MYCOBACTERIOLOGY

### Tuberculosis Division

On the 25,473 specimens received during fiscal year 1983 for tuberculosis examinations, 145,136 examinations were performed. The examinations and the results follow.

| | | | |
|---|---|---|---|
| TOTAL SPECIMENS | | | 25,473 |
| Microscopic smears | | 24,189 | |
| Positive | 714 | | |
| Negative | 23,475 | | |
| Cultures for identification | | 871 | |
| Unsatisfactory specimens | | 413 | |
| TOTAL CULTURES | | | 25,060 |
| Positive | | 1,610 | |
| Negative | | 20,828 | |
| Unsatisfactory contaminated | | 1,213 | |
| Mycobacteria not *M. tuberculosis** | | 1,378 | |
| *Nocardia* | | 31 | |

*Only 641 of these cultures were suspected pathogens and were identified as follows:

| | |
|---|---|
| *M. kansasii* | 36 |
| *M. marinum* | 7 |
| *M. scrofulaceum* | 7 |
| *M. avium—M. intracellulare* complex | 478 |
| *M. chelonei* subspecies *abscessus* | 60 |
| *M. fortuitum* | 42 |
| *M. szulgai* | 1 |
| *M. avium-intracellulare-scrofulaceum* complex | 10 |

Special tests performed for identification were:

| | | |
|---|---|---|
| Subculture | | 1,432 |
| Primary biochemicals (identification of *M. tuberculosis)* | | 792 |
| Secondary biochemicals (identification of all other mycobacteria) | | 640 |
| Serotyping | | 342 |
| Drug susceptibility test | | 1,447 |
| Direct tests | 243 | |
| Indirect tests | 1,204 | |

### Mycology Division

Of the 3,326 specimens received by the Mycology Division, 833 were cultures for identification. The following pathogenic or possible pathogenic fungi were identified:

| | |
|---|---|
| *Blastomyces dermatitidis* | 12 |
| *Cryptococcus neoformans* | 20 |
| *Cryptococcus albidus* | 4 |
| *Candida albicans* | 78 |
| *Candida guillermondii* | 7 |
| *Candida krusei* | 10 |
| *Candida norvegensis* | 2 |
| *Candida parapsilosis* | 37 |
| *Candida pseudotropicalis* | 1 |
| *Candida stellatoidea* | 2 |
| *Candida tropicalis* | 53 |
| *Candida rugosa* | 1 |
| *Coccidioides immitis* | 5 |
| *Histoplasma capsulatum* | 15 |
| *Sporothrix schenckii* | 5 |
| *Nocardia asteroides* | 10 |
| *Nocardia brasiliensis* | 1 |
| *Petriellidium boydii* | 10 |
| *Exophiala jeanselmei* | 16 |
| *Fonsecaea pedrosoi* | 1 |
| *Phialophora verrucosa* | 2 |
| *Saccharomyces cerevisiae* | 5 |
| *Torulopsis glabrata* | 33 |
| *Wangiella dermatitidis* | 7 |
| *Trichosporan beigelii* | 9 |
| *Geotrichum candidum* | 3 |
| *Aspergillus fumigatus* | 20 |
| *Aspergillus flavus* | 33 |
| *Aspergillus glaucus* | 5 |
| *Aspergillus nidulans* | 31 |
| *Aspergillus niger* | 20 |
| *Aspergillus terreus* | 4 |
| *Microsporum audounii* | 1 |
| *Microsporum canis* | 7 |
| *Microsporum gypseum* | 9 |
| *Microsporum gallinae* | 1 |
| *Epidermophyton floccosum* | 3 |

| | |
|---|---|
| *Trichophyton mentagrophytes* | 8 |
| *Trichophyton rubrum* | 56 |
| *Trichophyton tonsurans* | 13 |
| *Trichophyton schoenleinii* | 1 |
| *Trichophyton verrucosum* | 1 |
| *Mucor* sp. | 3 |

Animals were inoculated with seven soil samples; three were reported positive for *Histoplasma capsulatum*.

The Primary Drug Resistance Study with CDC was completed this year. During seven years 520 primary tuberculosis cultures have been forwarded to CDC. From this study a survey was made comparing the drug susceptibility results of this laboratory with those obtained at CDC. Results showed 100 percent agreement on cultures CDC called susceptible and 91 percent agreement on cultures CDC called resistant. As a result of this survey, a new CDC study on Drug Susceptibility of *M. tuberculosis*—Comparability of Results Among Laboratories was started. A total of 200 cultures was sent to each participating laboratory to be tested, and the results of the various laboratories will be compared.

A new Drug Resistance Study began September 30, 1982, in which cultures from never treated and from previously treated patients are being examined.

The Mycology Division served as a reference laboratory for CDC and the New York City Public Health Laboratory in their proficiency testing programs. The Centers for Disease Control sent no proficiency testing samples in mycobacteriology this year.

This laboratory continued to give bench training to the medical technology students from Baptist Medical Center of Montgomery. The training included diagnostic methods for tuberculosis and mycology.

**Personnel**—The staff of this bureau consisted of one Microbiologist IV, three Microbiologist III's, six Microbiologist II's, one Laboratory Technician III and two Laboratory Technician II's.

*Incoming VDRL specimens await checking for proper identification.*

## Birmingham Branch Laboratory

The Birmingham branch laboratory performed 331,058 examinations on 270,035 specimens in fiscal year 1983. These examinations included the following:

1. 83,151 VDRL slide tests for syphilis of which 4 percent were positive.
2. 152,253 *Neisseria gonorrhoeae* cultures of which 6.3 percent were positive.
3. 7,847 dairy samples of which 19.5 percent were positive.
4. 24,861 water samples of which 13.5 percent were positive for coliform bacteria.
5. 931 water samples for fluoride determination of which 2.3 percent were positive.
6. 910 animal brain specimens for rabies test of which 15 (1.6 percent) were positive. The 15 positive specimens were all bats.

The state laboratory evaluation officer, assisted by the sanitary bacteriology section prepared and submitted split milk proficiency test samples to all state milk laboratories, in accordance with the Nation Conference of Interstate Milk Shipments and the Food and Drug Administration. The results were compiled and statistically analyzed. The written report, filed with the proper federal and state agencies, indicated all state milk laboratories and analysts maintained certification status for the milk tests performed.

The evaluation officer conducted 13 on-site laboratory evaluations in accordance with the Food and Drug Administration and Environmental Protection Agency laboratory certification programs.

These laboratories were updated to maintain standardization and certified where compliance with established procedures and regulations were observed. Nine analysts were certified in three milk laboratories while 37 analysts were certified in 10 water laboratories.

Certification was awarded to the analysts who complied with the following major areas of responsibility:

1. Accuracy of technique and results.
2. Interpreting and reporting results.
3. Quality control procedures and records.
4. Safety requirements.

The evaluation officer and the sanitary bacteriology section also provided training to nine municipal/private industry analysts, conducted a butterfat workshop for state laboratory analysts and further served as reference analysts to other milk and water laboratories in the state.

In addition these analysts provided quality control and evaluation testing of new products to be used in milk and water analysis.

The evaluation officer attended the National Conference of Interstate Milk Shipments, the FDA Laboratory Evaluation Officers Workshop, and the Region IV FDA State Rating and Evaluation Officers Seminar. One microbiologist attended the CDC training course, Laboratory Methods for Diagnosing Rabies.

The Birmingham branch laboratory was evaluated by the FDA and EPA laboratory certification specialists and was recertified for milk and water testing. The serology section was surveyed by reference analysts in the Montgomery laboratory.

The laboratory participated in several proficiency testing programs and received test samples in rabies, syphilis serology, gonorrhoeae culture, milk and water.

**Personnel**—The staff consisted of one Microbiologist V, one Microbiologist IV, two Microbiologist III's, three Microbiologist II's, three Microbiologist I's, two Laboratory Technician III's, two Laboratory Technician II's, three Laboratory Technician I's, one Clerk Typist III and two Clerk Typist II's.

## Decatur Branch Laboratory

The Decatur branch laboratory performed 103,023 examinations on 72,522 specimens during fiscal year 1983. These specimens included the following:

1. 24,123 VDRL slide tests for syphilis of which 3.6 percent were positive. The positivity rate was 0.9 percent higher than in 1982.
2. 757 blood specimens were tested for the Rh factor. This program was transferred to the Montgomery laboratory during the latter part of October 1982.
3. 4,958 milk and dairy products of which 14.8 percent were positive.
4. 15,945 public and private water samples were tested, using the millipore filter technique. 11.6 percent were positive.
5. 26,077 *Neisseria gonorrhoeae* cultures were received. 6.3 percent of them were positive.
6. 640 animal brains were tested for rabies. The 17 positives found represented a 2.7 percent positivity rate.

The Decatur branch laboratory continued to participate in proficiency testing programs for milk analysis, syphilis serology, water supply study for total coliform analysis, *Neisseria gonorrhoeae*, and rabies.

Rabies specimens decreased by 140 specimens in 1983. The number of positives also decreased from 41 in 1982 to 17 in 1983. Two dogs were the only domestic animals found positive in 1983; the remainder of positives were skunks and bats.

Personnel conducted tours of the laboratory to interested groups, lectured to microbiology classes from Calhoun Junior College, and participated in nurses in-service meetings of Tri-County District Health Services.

**Personnel**—One Microbiologist IV, two Microbiologist III's, two Microbiologist II's, two Laboratory Technician II's and one Clerk Typist II staffed this laboratory.

## Dothan Branch Laboratory

The Dothan branch laboratory performed 28,046 examinations on 16,975 specimens. These examinations included the following:

1. 1,325 dairy samples of which 22 percent were positive.
2. 7,184 water samples from public and private sources of which 10 percent were positive.
3. 8,439 *Neisseria gonorrhoeae* cultures of which 10 percent were positive.

The number of water and *Neisseria gonorrhaeae* samples for the year increased while the number of dairy samples decreased.

The laboratory also shipped 383 animal heads to the central laboratory for rabies testing.

The Dothan branch laboratory continues to participate in the proficiency testing programs for milk analysis, *Neisseria gonorrhoeae* and water.

Laboratory personnel conducted tours of the laboratory for groups from the Girls Club, George C. Wallace Community College nursing program and new employees of Houston County Health Department. They also assisted local students with science projects.

The laboratory was surveyed and certified for dairy samples, water samples and *Neisseria gonorrhoeae* cultures.

The seven counties in the southeastern corner of the state continue to be the service area of this laboratory.

**Personnel**—The staff consisted of one Microbiologist III, one Laboratory Technician II and one Laboratory Technician I.

*Norma Vance oxidizes a GC plate.*

## Mobile Branch Laboratory

The Mobile branch laboratory performed 140,208 examinations on 114,054 specimens this year. The following examinations were performed.

1. 49,085 VDRL slide tests for syphilis, showing a 7 percent increase over last year. Of the total number, 17 percent were premarital tests. Four percent of the total showed reactive.
2. 324 shellfish samples were tested, for coliform organisms by the multiple tube Most Probable Number (MPN) method. The number of samples of shellfish was an 88 percent increase over last year. The 407 bay water samples tested were 115 percent more than the previous year.
3. 49,250 *Neisseria gonorrhoeae* cultures results were reported. Of this number 6 percent were positive. Fifty-one penicillinase producing gonorrhea cultures were found.
4. 242 animal brains were examined for rabies. These were a 12 percent increase from last year. Five positives were found compared to one for last year, and they were all bats.
5. 1,890 dairy samples were tested—a 20 percent decrease from 1982. Positive tests increased from 28 percent to 31 percent of all samples.
6. 12,725 potable water samples were received—a 0.4 percent decrease from last year. Forty-seven surface water samples were tested by the MPN method.

In other activities, the laboratory received proficiency testing specimens for *Neisseria gonorrhoeae*, syphilis serology, milk testing and potable water.

The laboratory moved from the Mobile County Health Department building located at 248 Cox Street on September 17, 1983, to a temporary facility. This location is 2000 Old Bay Front Drive on the third floor of a building on the University of South Alabama Brookley property. The move was accomplished with no disruption of service.

The laboratory was recertified to perform Medicaid testing for syphilis serology and *Neisseria gonorrhoeae*.

Due to questions regarding the public health significance of the fecal coliform standards proposal by the Interstate Shellfish Sanitation Conference, the laboratory began participating in a research evaluating shellfish testing procedures. The results will be forwarded to the Food and Drug Administration which will correlate and analyze the data.

One microbiologist attended the Interstate Shellfish Sanitation Conference held in New Orleans.

A survey and evaluation of the shellfish testing program was conducted by a representative from the U.S. Food and Drug Administration office in Rhode Island.

**Personnel**—One Microbiologist V, one Microbiologist III, five Microbiologist II's, one Microbiologist I, three Laboratory Technician I's and one Clerk Typist II comprise the staff of this laboratory.

## TABLE 4-5
## COMBINED CLINICAL LABORATORIES
## FISCAL YEAR 1983

| SEROLOGY-CYTOLOGY-METABOLIC | | SPECIMENS | POSITIVES | NEGATIVES | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|
| Cytology | | 326 | | | | 339 |
| STS | VDRL-Routine WR 2,655 | 173,332 | 11,685 | 160,090 | 1,555 | 186,006 |
| | VDRL-Premarital WR 209 | 34,305 | 485 | 33,710 | 110 | 34,836 |
| | VDRL-Spinal Fluid | 1,361 | 1 | 1,330 | 30 | 1,361 |
| | MHA-TP | 2,932 | | | | 2,932 |
| Bacterial Agglutination | | 81 | 10 | 147 | | 159 |
| Rh Factor | | 12,451 | 8,826 | 2,832 | 43 | 20,750 |
| Agar Gel | | 1,668 | 317 | 1,348 | 3 | 3,588 |
| CF | Viral | 3,234 | | | | 14,812 |
| | Fungal | 1,644 | | | | 6,576 |
| HI | Rubella-Influenza-SLE-Dengue | 3,266 | | | | 3,445 |
| IHA | Amebiasis | 29 | | 29 | | 29 |
| IFA | FTA-ABS B 35 | 1,217 | 140 | 1,076 | 1 | 1,427 |
| | Toxoplasmosis >256 93 | 862 | 221 | 640 | 1 | 875 |
| | Legionnaires | 511 | | | | 517 |
| | Rickettsia | | | | | |
| META-BOLIC | Hemaglobinopathies | 42,758 | | | 129 | 43,215 |
| | PKU-Guthrie | 99,786 | | | | 99,786 |
| | PKU-Chromatography | 113 | | | | 345 |
| | CSF-Total Protein | 288 | 44 | 71 | 173 | 288 |
| | Hypothyroid | 98,574 | | | 11,223 | 138,646 |
| MCH/FP VDRL WR 14 | | 2,087 | 35 | 2,023 | 29 | 2,093 |
| MCH/FP Rubella | | 9,665 | 8,149 | 1,433 | 26 | 10,612 |
| **BACTERIOLOGY** | | | | | | |
| Enteric | | 4,146 | 1,115 | 2,910 | 111 | 7,899 |
| Sanitary-Dairy | | 20,028 | 2,575 | 16,323 | 183 | 62,998 |
| Potable Water | | 78,119 | 7,480 | 66,846 | 3,841 | 150,096 |
| Fluorine | | 931 | 1 | 908 | 22 | 931 |
| Bay Water | | 407 | 156 | 251 | | 814 |
| Shellfish | | 324 | 159 | 164 | 1 | 1,296 |
| Food Bacteriology | | 227 | 12 | 213 | 2 | 357 |
| General Bacteriology | | 876 | 741 | 23 | 104 | 25,699 |
| Staphylococcus | | 51 | 32 | 2 | 1 | 55 |
| Diphtheria | | 4 | | 4 | | 12 |
| Bordetella pertussis-Culture | | 33 | 5 | 26 | 2 | 153 |
| Legionella | | 24 | | 23 | 1 | 318 |
| GC Culture-PPNG Screening 20,278 | | 299,983 | 20,254 | 274,645 | 5,457 | 341,900 |
| Parasitology | | 14,947 | 1,698 | 12,520 | 628 | 14,403 |
| Rabies-FA | | 2,884 | 86 | 2,723 | 75 | 2,708 |
| Bordetella pertussis-FA | | 35 | 4 | 31 | | 285 |
| Streptococci | | 345 | 48 | 297 | | 473 |
| Brucella | | 3 | | 3 | | 15 |
| MCH/FP RPR | | 18,842 | 211 | 18,525 | 100 | 18,966 |
| **TB-MYCOLOGY** | | | | | | |
| TB | Microscopic Smears | 24,602 | 714 | 23,475 | 413 | 24,189 |
| | Referred Cultures | 871 | | | | |
| | Total Cultures 25,060 | | 1,610 | 21,427 | 1,213 | 145,136 |
| Mycology | | 3,326 | | | | 32,434 |
| **CHECK SPECIMENS** | | 975 | | | | 2,951 |
| **TOTALS** | | 962,473 | 66,814 | 646,068 | 25,477 | 1,406,725 |

## TABLE 4-6
## MONTGOMERY CLINICAL LABORATORY
## FISCAL YEAR 1983

| SEROLOGY-CYTOLOGY-METABOLIC | | SPECIMENS | POSITIVES | NEGATIVES | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|
| Cytology | | 326 | | | | 339 |
| STS | VDRL-Routine WR 1,417 | 42,948 | 5,697 | 36,083 | 1,168 | 49,303 |
| | VDRL-Premarital WR 106 | 8,430 | 217 | 8,138 | 75 | 8,719 |
| | VDRL-Spinal Fluid | 1,361 | 1 | 1,330 | 30 | 1,361 |
| | MHA-TP | 2,932 | | | | 2,932 |
| Bacterial Agglutination | | 81 | 10 | 147 | | 159 |
| MCH/FP Rh Factor | | 11,694 | 8,826 | 2,832 | 40 | 19,526 |
| Agar Gel | | 1,668 | 317 | 1,348 | 3 | 3,588 |
| CF | Viral | 3,234 | | | | 14,812 |
| | Fungal | 1,644 | | | | 6,576 |
| HI | Rubella-Influenza-SLE-Dengue | 3,266 | | | | 3,445 |
| IHA | Amebiasis | 29 | | 29 | | 29 |
| IFA | FTA-ABS B 35 | 1,217 | 140 | 1,076 | 1 | 1,427 |
| | Toxoplasmosis > 256 93 | 862 | 221 | 640 | 1 | 875 |
| | Legionnaires | 511 | | | | 517 |
| | Rickettsia | | | | | |
| META-BOLIC | Hemaglobinopathies | 42,758 | | | 129 | 43,215 |
| | PKU-Guthrie | 99,786 | | | | 99,786 |
| | PKU-Chromatography | 113 | | | | 345 |
| | CSF-Total Protein | 288 | 44 | 71 | 173 | 288 |
| | Hypothyroid | 98,574 | | | 11,223 | 138,646 |
| MCH/FP VDRL WR 14 | | 2,087 | 35 | 2,023 | 29 | 2,093 |
| MCH/FP Rubella | | 9,665 | 8,149 | 1,433 | 26 | 10,612 |
| **BACTERIOLOGY** | | | | | | |
| Enteric | | 4,146 | 1,115 | 2,910 | 111 | 7,899 |
| Sanitary-Dairy | | 4,008 | 812 | 3,629 | 5 | 15,965 |
| Potable Water | | 17,357 | 1,443 | 15,207 | 707 | 32,654 |
| Fluorine | | | | | | |
| Bay Water | | | | | | |
| Shellfish | | | | | | |
| Food Bacteriology | | 227 | 12 | 213 | 2 | 357 |
| General Bacteriology | | 876 | 741 | 23 | 104 | 25,699 |
| Staphylococcus | | 51 | 32 | 2 | 1 | 55 |
| Diphtheria | | 4 | | 4 | | 12 |
| Bordetella pertussis-Culture | | 33 | 5 | 26 | 2 | 153 |
| Legionella | | 24 | | 23 | 1 | 318 |
| GC Culture-PPNG Screening 4,830 | | 63,964 | 5,012 | 57,848 | 1,435 | 73,896 |
| Parasitology | | 14,947 | 1,698 | 12,520 | 628 | 14,403 |
| Rabies-FA | | 1,092 | 49 | 1,022 | 21 | 970 |
| Bordetella pertussis-FA | | 35 | 4 | 31 | | 285 |
| Streptococci | | 345 | 48 | 297 | | 473 |
| Brucella | | 3 | | 3 | | 15 |
| MCH/FP RPR | | 18,842 | 211 | 18,525 | 100 | 18,966 |
| **TB-MYCOLOGY** | | | | | | |
| TB | Microscopic Smears | 24,602 | 714 | 23,475 | 413 | 24,189 |
| | Referred Cultures | 871 | | | | |
| | Total Cultures 25,060 | | 1,610 | 21,427 | 1,213 | 145,136 |
| Mycology | | 3,326 | | | | 32,434 |
| **CHECK SPECIMENS** | | 660 | | | | 1,918 |
| **TOTALS** | | 488,887 | 37,163 | 212,335 | 17,641 | 824,390 |

## TABLE 4-7
## BIRMINGHAM CLINICAL LABORATORY
## FISCAL YEAR 1983

| SEROLOGY-CYTOLOGY-METABOLIC | | | SPECIMENS | POSITIVES | NEGATIVES | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|---|
| Cytology | | | | | | | |
| STS | VDRL-Routine | WR 764 | 68,209 | 3,242 | 64,676 | 291 | 71,501 |
| | VDRL-Premarital | WR 65 | 14,892 | 139 | 14,725 | 28 | 15,003 |
| | VDRL-Spinal Fluid | | | | | | |
| | MHA-TP | | | | | | |
| Bacterial Agglutination | | | | | | | |
| Rh Factor | | | | | | | |
| Agar Gel | | | | | | | |
| CF | Viral | | | | | | |
| | Fungal | | | | | | |
| HI | Rubella-Influenza-SLE-Dengue | | | | | | |
| IHA | Amebiasis | | | | | | |
| IFA | FTA-ABS | B | | | | | |
| | Toxoplasmosis | > 256 | | | | | |
| | Legionnaires | | | | | | |
| | Rickettsia | | | | | | |
| META-BOLIC | Hemaglobinopathies | | | | | | |
| | PKU-Guthrie | | | | | | |
| | PKU-Chromatography | | | | | | |
| | CSF-Total Protein | | | | | | |
| | Hypothyroid | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **BACTERIOLOGY** | | | | | | | |
| Enteric | | | | | | | |
| Sanitary-Dairy | | | 7,847 | 153 | 6,170 | 146 | 22,432 |
| Potable Water | | | 24,861 | 3,375 | 20,146 | 1,340 | 47,915 |
| Fluorine | | | 931 | 1 | 908 | 22 | 931 |
| Bay Water | | | | | | | |
| Shellfish | | | | | | | |
| Food Bacteriology | | | | | | | |
| General Bacteriology | | | | | | | |
| Staphylococcus | | | | | | | |
| Diphtheria | | | | | | | |
| Bordetella pertussis-Culture | | | | | | | |
| Legionella | | | | | | | |
| GC Culture-PPNG Screening | | 9,616 | 152,253 | 9,602 | 140,007 | 2,644 | 171,152 |
| Parasitology | | | | | | | |
| Rabies-FA | | | 910 | 15 | 873 | 22 | 888 |
| Bordetella pertussis-FA | | | | | | | |
| Streptococci | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **TB-MYCOLOGY** | | | | | | | |
| TB | Microscopic Smears | | | | | | |
| | Referred Cultures | | | | | | |
| | Total Cultures | | | | | | |
| Mycology | | | | | | | |
| **CHECK SPECIMENS** | | | 132 | | | | 236 |
| **TOTALS** | | | 270,035 | 16,527 | 247,505 | 4,493 | 331,058 |

## TABLE 4-8
## DECATUR CLINICAL LABORATORY
## FISCAL YEAR 1983

| SEROLOGY-CYTOLOGY-METABOLIC | | SPECIMENS | POSITIVES | NEGATIVES | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|
| Cytology | | | | | | |
| STS | VDRL-Routine WR 220 | 20,258 | 809 | 19,404 | 43 | 21,096 |
| | VDRL-Premarital WR 29 | 3,815 | 62 | 3,748 | 5 | 3,872 |
| | VDRL-Spinal Fluid | | | | | |
| | MHA-TP | | | | | |
| Bacterial Agglutination | | | | | | |
| Rh Factor | | 757 | | | 3 | 1,224 |
| Agar Gel | | | | | | |
| CF | Viral | | | | | |
| | Fungal | | | | | |
| HI | Rubella-Influenza-SLE-Dengue | | | | | |
| IHA | Amebiasis | | | | | |
| IFA | FTA-ABS B | | | | | |
| | Toxoplasmosis > 256 | | | | | |
| | Legionnaires | | | | | |
| | Rickettsia | | | | | |
| META-BOLIC | Hemaglobinopathies | | | | | |
| | PKU-Guthrie | | | | | |
| | PKU-Chromatography | | | | | |
| | CSF-Total Protein | | | | | |
| | Hypothyroid | | | | | |
| | | | | | | |
| | | | | | | |
| **BACTERIOLOGY** | | | | | | |
| Enteric | | | | | | |
| Sanitary-Dairy | | 4,958 | 732 | 4,200 | 26 | 15,210 |
| Potable Water | | 15,945 | 1,847 | 13,553 | 588 | 31,374 |
| Fluorine | | | | | | |
| Bay Water | | | | | | |
| Shellfish | | | | | | |
| Food Bacteriology | | | | | | |
| General Bacteriology | | | | | | |
| Staphylococcus | | | | | | |
| Diphtheria | | | | | | |
| Bordetella pertussis-Culture | | | | | | |
| Legionella | | | | | | |
| GC Culture-PPNG Screening 1,487 | | 26,077 | 1,645 | 24,043 | 389 | 29,252 |
| Parasitology | | | | | | |
| Rabies-FA | | 640 | 17 | 596 | 27 | 613 |
| Bordetella pertussis-FA | | | | | | |
| Streptococci | | | | | | |
| | | | | | | |
| | | | | | | |
| **TB-MYCOLOGY** | | | | | | |
| TB | Microscopic Smears | | | | | |
| | Referred Cultures | | | | | |
| | Total Cultures | | | | | |
| Mycology | | | | | | |
| **CHECK SPECIMENS** | | 72 | | | | 382 |
| **TOTALS** | | 72,522 | 5,112 | 65,544 | 1,081 | 103,023 |

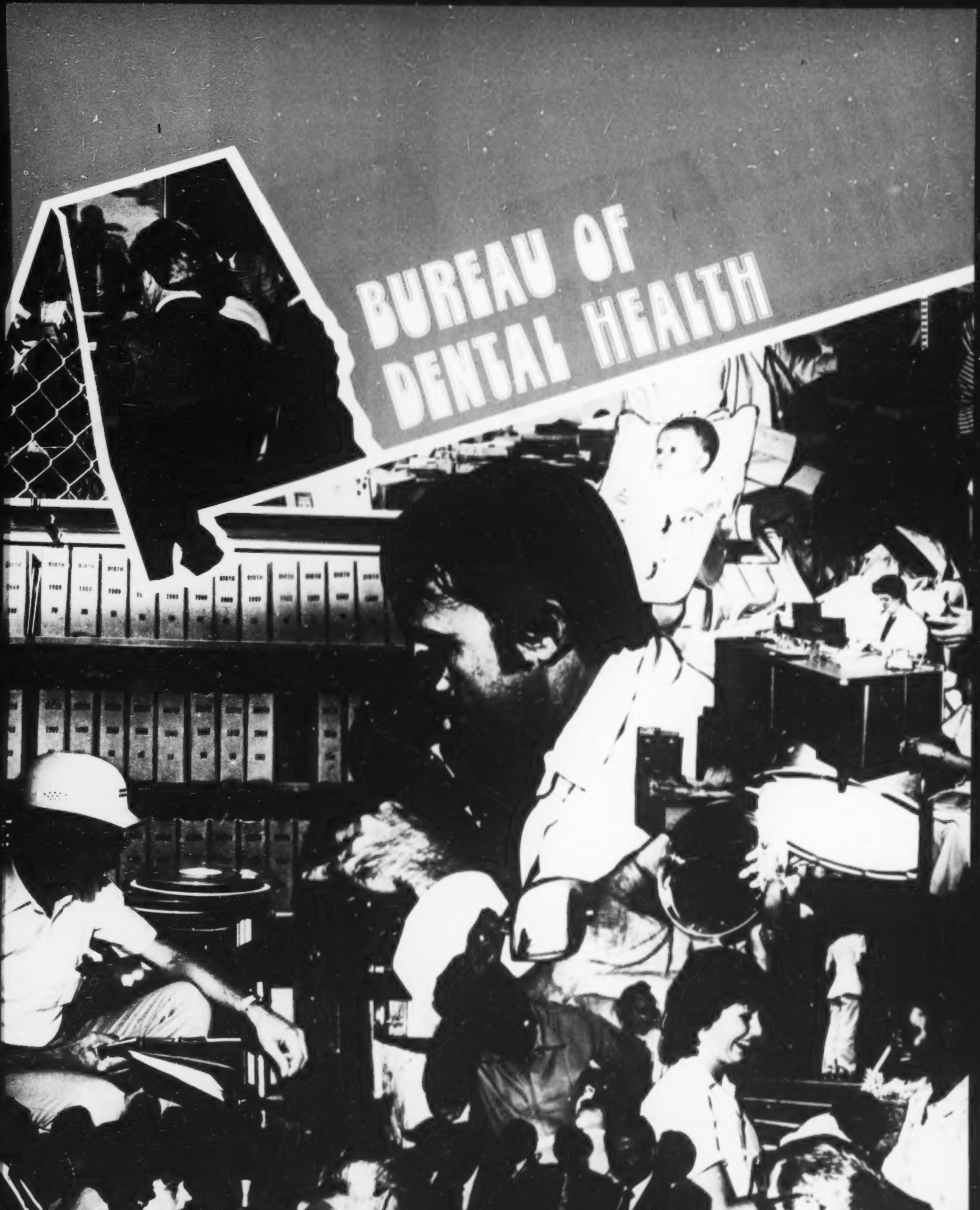
## TABLE 4-9
## DOTHAN CLINICAL LABORATORY
## FISCAL YEAR 1983

| SEROLOGY-CYTOLOGY-METABOLIC | | SPECIMENS | POSITIVES | NEGATIVES | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|
| Cytology | | | | | | |
| STS | VDRL-Routine WR | | | | | |
| | VDRL-Premarital WR | | | | | |
| | VDRL-Spinal Fluid | | | | | |
| | MHA-TP | | | | | |
| Bacterial Agglutination | | | | | | |
| Rh Factor | | | | | | |
| Agar Gel | | | | | | |
| CF | Viral | | | | | |
| | Fungal | | | | | |
| HI | Rubella-Influenza-SLE-Dengue | | | | | |
| IHA | Amebiasis | | | | | |
| IFA | FTA-ABS B | | | | | |
| | Toxoplasmosis > 256 | | | | | |
| | Legionnaires | | | | | |
| | Rickettsia | | | | | |
| META-BOLIC | Hemaglobinopathies | | | | | |
| | PKU-Guthrie | | | | | |
| | PKU-Chromatography | | | | | |
| | CSF-Total Protein | | | | | |
| | Hypothyroid | | | | | |
| | | | | | | |
| | | | | | | |
| **BACTERIOLOGY** | | | | | | |
| Enteric | | | | | | |
| Sanitary-Dairy | | 1,325 | 293 | 1,020 | 5 | 3,667 |
| Potable Water | | 7,184 | 712 | 6,268 | 209 | 14,236 |
| Fluorine | | | | | | |
| Bay Water | | | | | | |
| Shellfish | | | | | | |
| Food Bacteriology | | | | | | |
| General Bacteriology | | | | | | |
| Staphylococcus | | | | | | |
| Diphtheria | | | | | | |
| Bordetella pertussis-Culture | | | | | | |
| Legionella | | | | | | |
| GC Culture-PPNG Screening 847 | | 8,439 | 847 | 7,324 | 310 | 10,078 |
| Parasitology | | | | | | |
| Rabies-FA | | | | | | |
| Bordetella pertussis-FA | | | | | | |
| Streptococci | | | | | | |
| | | | | | | |
| | | | | | | |
| **TB-MYCOLOGY** | | | | | | |
| TB | Microscopic Smears | | | | | |
| | Referred Cultures | | | | | |
| | Total Cultures | | | | | |
| Mycology | | | | | | |
| **CHECK SPECIMENS** | | 27 | | | | 65 |
| **TOTALS** | | 16,975 | 1,852 | 14,612 | 524 | 28,046 |

## TABLE 4-10
## MOBILE CLINICAL LABORATORY
## FISCAL YEAR 1983

| SEROLOGY-CYTOLOGY-METABOLIC | | | SPECIMENS | POSITIVES | NEGATIVES | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|---|
| Cytology | | | | | | | |
| STS | VDRL-Routine | WR 254 | 41,917 | 1,937 | 39,927 | 53 | 44,106 |
| | VDRL-Premarital | WR 9 | 7,168 | 67 | 7,099 | 2 | 7,242 |
| | VDRL-Spinal Fluid | | | | | | |
| | MHA-TP | | | | | | |
| Bacterial Agglutination | | | | | | | |
| Rh Factor | | | | | | | |
| Agar Gel | | | | | | | |
| CF | Viral | | | | | | |
| | Fungal | | | | | | |
| HI | Rubella-Influenza-SLE-Dengue | | | | | | |
| IHA | Amebiasis | | | | | | |
| IFA | FTA-ABS | B | | | | | |
| | Toxoplasmosis | > 256 | | | | | |
| | Legionnaires | | | | | | |
| | Rickettsia | | | | | | |
| META-BOLIC | Hemaglobinopathies | | | | | | |
| | PKU-Guthrie | | | | | | |
| | PKU-Chromatography | | | | | | |
| | CSF-Total Protein | | | | | | |
| | Hypothyroid | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **BACTERIOLOGY** | | | | | | | |
| Enteric | | | | | | | |
| Sanitary-Dairy | | | 1,890 | 585 | 1,304 | 1 | 5,724 |
| Potable Water | | | 12,772 | 103 | 11,672 | 997 | 23,917 |
| Fluorine | | | | | | | |
| Bay Water | | | 407 | 156 | 251 | | 814 |
| Shellfish | | | 324 | 159 | 164 | 1 | 1,296 |
| Food Bacteriology | | | | | | | |
| General Bacteriology | | | | | | | |
| Staphylococcus | | | | | | | |
| Diphtheria | | | | | | | |
| Bordetella pertussis-Culture | | | | | | | |
| Legionella | | | | | | | |
| GC Culture-PPNG Screening | | 3,498 | 49,250 | 3,148 | 45,423 | 679 | 56,522 |
| Parasitology | | | | | | | |
| Rabies-FA | | | 242 | 5 | 232 | 5 | 237 |
| Bordetella pertussis-FA | | | | | | | |
| Streptococci | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **TB-MYCOLOGY** | | | | | | | |
| TB | Microscopic Smears | | | | | | |
| | Referred Cultures | | | | | | |
| | Total Cultures | | | | | | |
| Mycology | | | | | | | |
| **CHECK SPECIMENS** | | | 84 | | | | 350 |
| **TOTALS** | | | 114,054 | 6,160 | 106,072 | 1,738 | 140,208 |

# BUREAU OF DENTAL HEALTH



# BUREAU OF DENTAL HEALTH

## Dental Health Education

This was the tenth year of the dental health emphasis which became the Alabama Smile Keeper Program. The educational phase of the program, which is sponsored jointly by the Bureau of Dental Health, the Alabama Dental Association, the Alabama Dental Auxiliary, the Alabama Dental Foundation and the University of Alabama School of Dentistry, has had considerable success in reaching school children throughout Alabama.

The program has been offered to all public and private school systems in the state. Over 80 percent of the public schools have accepted and implemented it. Table 5-1 shows the extent of the 1983 program coverage.

TABLE 5-1
SCHOOL DENTAL HEALTH
EDUCATION PROGRAMS
1983

| School System | Students | Teachers |
|---|---|---|
| **Public Health Area I** | | |
| Decatur City System | 650 | 26 |
| Jackson County System | 4,006 | 143 |
| Lawrence County System | 1,310 | 40 |
| TOTAL | 5,966 | 209 |
| **Public Health Area III** | | |
| Shelby County System | 1,270 | 45 |
| TOTAL | 1,270 | 45 |
| **Public Health Area IV** | | |
| Anniston City | 3,000 | 103 |
| Clay County | 1,648 | 65 |
| Coosa County | 1,271 | 48 |
| Jacksonville City | 900 | 14 |
| Oxford City | 607 | 35 |
| TOTAL | 7,426 | 265 |
| **Public Health Area V** | | |
| Alabama Christian | 200 | 8 |
| Barbour County | 1,234 | 56 |
| Bullock County | 1,242 | 43 |
| Crenshaw County | 1,600 | 75 |
| Lowndes County | 1,740 | 71 |
| Opp City | 900 | 36 |
| TOTAL | 6,916 | 289 |
| **Public Health Area VI** | | |
| Clarke County | 2,900 | 115 |
| Dallas County | 3,600 | 120 |
| Mobile County | 5,000 | 100 |
| Thomasville City | 784 | 33 |
| TOTAL | 12,284 | 368 |
| 1983 TOTAL | 33,862 | 1,176 |
| TOTAL 1974-1982 | 293,875 | 11,876 |
| GRAND TOTAL | 327,737 | 13,052 |

In addition several private and parochial schools have utilized the Alabama Smile Keeper Program.

**Elementary School Programs**—Nineteen school systems scheduled ASK's educational program during 1983. Records indicate that 35,038 elementary children and teachers received oral hygiene kits, educational material and professional dental instruction from Bureau of Dental Health staff members. School nurses, health occupations education students, local dental professionals and many other volunteers joined the team for a cohesive program. Community involvement continued to strengthen the ASK program.

**Head Start Program**—The bureau also scheduled dental health education for 19 Head Start programs. These programs were given for Head Start staff and parents. Classroom booklets, and oral hygiene supplies were provided for the enrollees in these programs. As Table 5-2 indicates these programs reached 6,533 recipients the past year.

TABLE 5-2
HEAD START
DENTAL HEALTH EDUCATION
1983

| Program | Children | Parents and Staff |
|---|---|---|
| **Public Health Area I** | | |
| Colbert—Lauderdale | 620 | 110 |
| Cullman City | 200 | 154 |
| TOTAL | 820 | 264 |
| **Public Health Area II** | | |
| Bibb—Greene | 160 | 25 |
| Pickens | 199 | 21 |
| Tuscaloosa | 80 | 13 |
| TOTAL | 439 | 59 |
| **Public Health Area III** | | |
| St. Clair | 40 | 12 |
| Walker-Winston | 80 | 14 |
| TOTAL | 120 | 26 |
| **Public Health Area IV** | | |
| Etowah | 120 | 30 |
| **Public Health Area V** | | |
| Dothan City | 350 | 40 |
| Henry County | | 16 |
| Lowndes County | 250 | 27 |
| Montgomery | 1,200 | 264 |
| Russell County | 100 | 10 |
| TOTAL | 1,900 | 357 |
| **Public Health Area VI** | | |
| Baldwin—Escambia | 300 | 43 |
| Dallas | 220 | 30 |
| Monroe | 165 | 31 |
| Mobile | 900 | 125 |
| Sumter | 463 | 27 |
| Perry | 80 | 14 |
| TOTAL | 2,128 | 270 |
| 1983 TOTAL | 5,527 | 1,006 |

Besides educational services, the bureau assisted in evaluating and monitoring the Head Start dental components and examined Head Start children's teeth in a remote area where dental service was not available.

**Fluoride Brush-in Program**—Five school systems participated in a Fluoride Brush-in Program during 1983. An estimated 8,257 teachers and students brushed with concentrated 2.2 percent, acidulated phosphate fluoride (APF) paste. Non-fluoridated parts of Alabama, particularly school systems within these areas which were scheduled to receive the ASK dental health education program, were targets for the program. Time and money were better utilized when the two programs could consolidate.

The Brush-in Program showed a 433 percent increase over last year's pilot program. Brush-in participants are identified by county in Table 5-3.

TABLE 5-3
FLUORIDE BRUSH-IN PROGRAM
1983

| System | Date | Participants |
|---|---|---|
| Chilton County | April | 1,585 |
| Chilton County | December | 2,465 |
| Winston County | November | 441 |
| Thomasville | March | 784 |
| Bullock County | October | 1,242 |
| Lowndes County | November | 1,740 |
| | | 8,257 |

**Health Fairs**—The bureau actively participated in and encouraged dental health screening booths during local health fairs across the state. Portable dental equipment and bureau staff were available, on a request basis, to the entire state. A dental health component was scheduled in Montgomery and Autauga counties. Local dental support was solicited, and the response was commendable. Working cooperatively with the seven local dentists who donated their time, the bureau screened 437 adults for oral cancer and other abnormalities of the mouth. Although the incidence of oral cancer is higher for the particular age group examined (45 and over), no malignancies were discovered.

**Material Requests**—In programs other than the ASK Program, the Bureau of Dental Health distributed 11,254 pieces of dental health education literature in the form of pamphlets, charts, brochures, song lists, teacher guides, activity booklets and posters. These will be used in some form of dental health instruction throughout the state. The Alabama Dental Auxiliary, local health departments, student teachers, interested parents, and medical and dental professionals were a few of the groups that requested additional dental information.

## Nursing Home and Handicapped Programs

**Nursing Home Program**—The Alabama Nursing Home Association held its annual convention in Birmingham this year. Once again the association requested a dental health segment on its program.

An annual dental health in-service program is now a requirement for every extended care facility in the state. Facility administrators are now more actively seeking sources of dental health and oral hygiene training for their staff members.

One hundred fifty nursing home administrators attended the convention and participated in the dental health workshop which addressed the unique oral health problems of the geriatric patient.

The two-hour workshop included the latest in preventive dental health measures, as well as an extensive review of causes and control of dental disease. Detection of cancerous oral lesions was stressed, as it is well recognized that the elderly have a higher incidence of oral cancer.

Slides depicting various classifications of cancerous oral lesions and a demonstration of administering a soft tissue examination have been added to the nursing home program format. The bureau also recommends that each facility resident should be given a soft tissue examination at six month intervals.

As a follow-up to the request for this program from nursing home adminstrators, 12 facilities received training for 665 staff members; and 2,148 facility residents directly benefited.

The program format is structured to provide practical information to staff members so that they may provide quality oral hygiene and a good dental health program for their patients.

VISIT
YOUR
DENTIST!
HAVE A HEALTHY SMILE!

*A health fair exhibit promotes good dental care.*

**Program for the Handicapped**—During the past year McInnis School for the handicapped requested continued assistance with its dental program for special children. This program was initiated three years ago as a joint effort of the school administrator and the Bureau of Dental Health. Twenty-one teachers and 42 teacher aides have cooperated enthusiastically with the program. Follow-up, training sessions for new teachers and aides, and reinforced classroom visits by consultants from the bureau have resulted in improved oral hygiene for these students. Consultants from the bureau worked with teachers on devising the most satisfactory methods of brushing and flossing for each child, considering his particular physical and mental limitations. The bureau provided toothbrushes, dental floss and educational material for each student.

During the classroom visits each child was given a dental inspection, and a referral slip was then forwarded to the parents by the school administrator. The referral slip indicated the student's most urgent dental needs.

A total of 124 students benefited from the oral hygiene care provided at school, and many dental problems were corrected as a result of the referral program.

**Head Start Handicap Component**—The regional director of the Head Start specially funded handicap coordinators requested a dental health workshop in the Central and Southern areas of the state. These coordinators needed more knowledge on how to identify and aid in alleviating the dental problems they encountered with their handicapped students.

The Bureau of Dental Health devised a workshop format which addressed dental problems associated with specific disease entities and various medications prescribed for controlling these conditions. Throughout the workshop, behavior modification was stressed as a means of improving the oral hygiene of the handicapped children in the Head Start Program. Diet and nutrition counseling demonstrated to workshop participants that a reduction in carbohydrate consumption will reduce dental caries.

Parental involvement, training and education in the area of oral hygiene was an objective of the overall program content. Since many of the handicapped children in Head Start must rely solely on their parents and teachers for daily oral hygiene care, the teachers need to be trained to follow up on the students' home care and to work with parents in improving the oral hygiene of their children and increasing the parents' knowledge of the causes and the prevention of dental disease. Securing treatment for many of the special students is difficult; therefore prevention of any dental problem of these children is certainly beneficial.

This workshop, which was held at Auburn University at Montgomery, was presented for 20 coordinators and benefited 287 handicapped Head Start children.

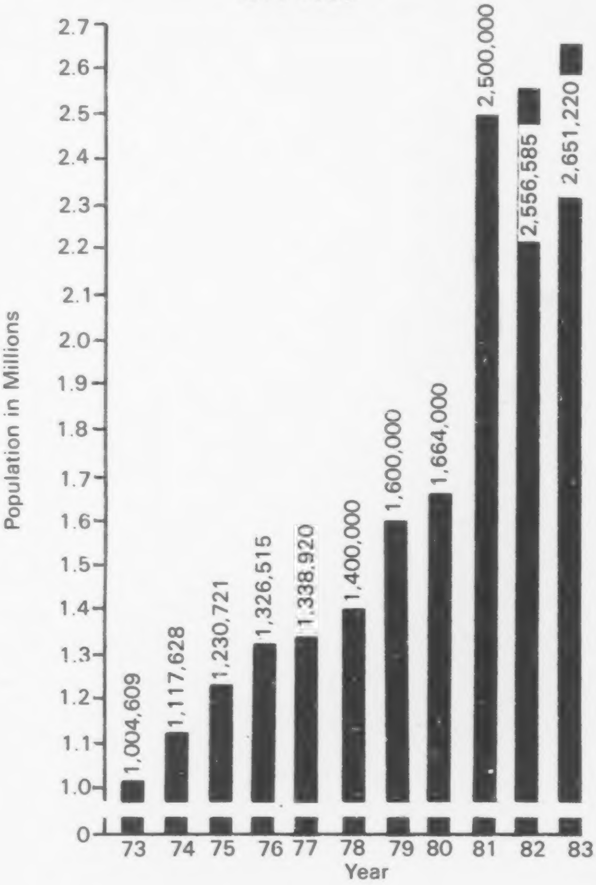
## Fluoridation

During the past year 94,500 additional Alabamians began receiving fluoridated water. The combined efforts of concerned citizens, professionals and this bureau resulted in this progress to fluoridate all possible water systems. Currently approximately 2,651,220 Alabamians are receiving the benefits of fluoridated water.

Many of the fluoridated water systems expanded their service areas during 1983, and some began serving communities whose old water sources had been abandoned. The water systems of Orange Beach, Prichard and Summerdale began fluoridation this year. These systems located in Public Health Area VI serve a total of 55,500 people. In addition Carbon Hill, Clayton, Jackson, Millbrook, Piedmont, Southside and Sumiton passed fluoridation ordinances and should begin fluoridating in the near future.

Since 1973 the number of Alabamians receiving fluoridated water has increased nearly 164 percent. As Graph 5-1 indicates slightly more than a million citizens were served by fluoridated water systems in 1973. This year more than 2.6 million persons, or 68 percent of the state's population, receive fluoridated water. With nearly one-third of the population still not receiving this benefit, efforts will continue.

GRAPH 5-1
ALABAMIANS RECEIVING FLUORIDATED WATER
1973-1983



## Fluoride Mouthrinse School Program

The Fluoride Mouthrinse Program has been added in 316 schools in areas of Alabama that do not have fluoridated water. During 1983, 109,910 elementary teachers and children voluntarily participated in the Fluoride Mouthrinse School Program which has shown significant growth with an increase of 34 percent from the previous year. Table 5-4 and Graph 5-2 demonstrate the extensiveness of benefits.

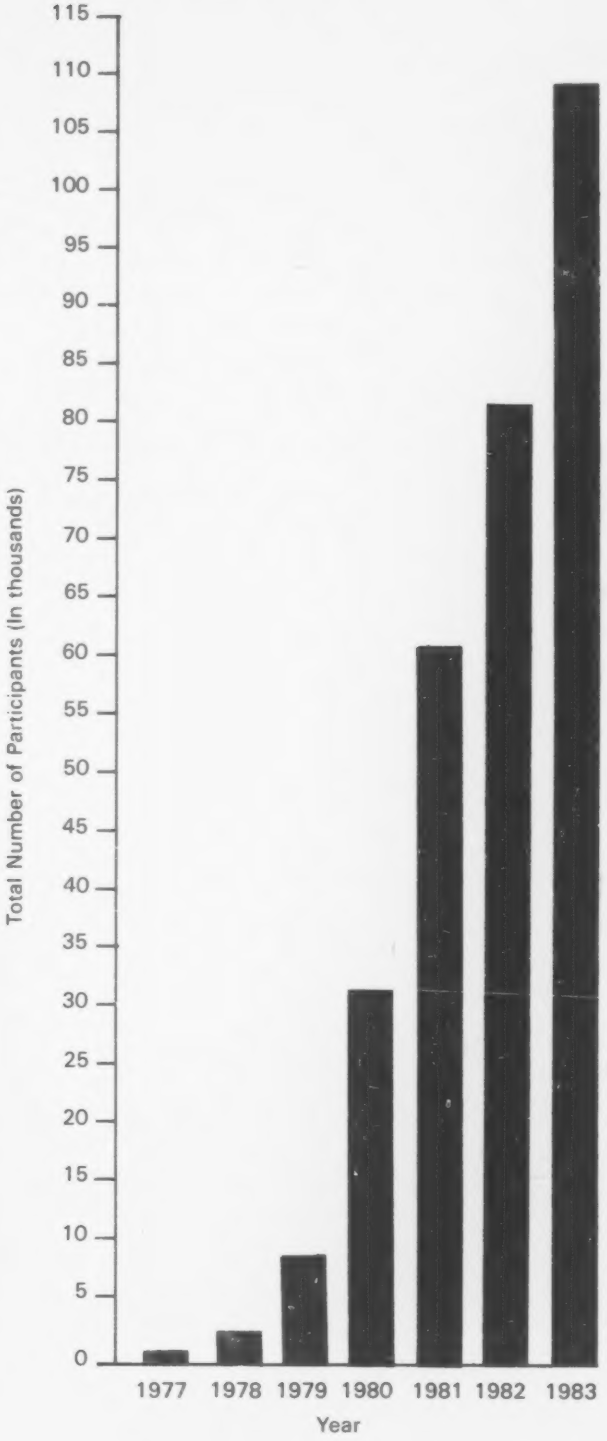
Weekly rinsing with a 0.2 percent solution of neutral sodium fluoride is effective in preventing tooth decay. The classroom procedure is safe and simple. Once each week, under supervision, the children in kindergarten through the sixth grade rinse for one minute with the fluoride solution.

TABLE 5-4
PARTICIPATION IN FLUORIDE MOUTHRINSE PROGRAM
1977-1983

| Year | Teachers | Children | Total Participants | Increase |
|---|---|---|---|---|
| 1977 | 26 | 500 | 526 | — |
| 1978 | 90 | 2,300 | 2,390 | 354% |
| 1979 | 387 | 8,908 | 9,295 | 289% |
| 1980 | 1,307 | 29,400 | 30,707 | 230% |
| 1981 | 2,575 | 57,718 | 60,293 | 96% |
| 1982 | 2,436 | 79,590 | 82,026 | 36% |
| 1983 | 3,510 | 106,400 | 109,910 | 34% |

*Teacher helps student learn about dental care.*

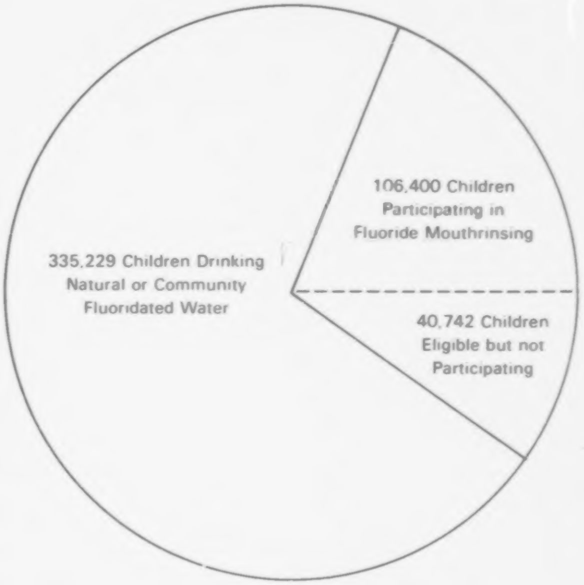
GRAPH 5-2
GROWTH OF FLUORIDE MOUTHRINSE PROGRAM
1977-1983



An estimated 70 percent of Alabama's elementary school children are enjoying the benefits of fluoridation, and 22 percent are participating in the supplemental Fluoride Mouthrinse Program. One of the reasons that 8 percent of the children are presently not participating in the program is that school administrators have chosen other priorities. Fluoride benefits for Alabama children are presented in Graph 5-3.

For the first time, the Bureau of Dental Health has offered the Fluoride Mouthrinse Program to all public school systems that were found to have fluoride deficient school sites. As more communities fluoridate their water supplies, the fluoride mouthrinse statistics should decrease. However at the present time the Fluoride Mouthrinse Program is important in controlling tooth decay and providing brighter smiles and healthier teeth for children throughout Alabama. Table 5-5 gives a breakdown of number of participants by county.

**GRAPH 5-3**
**ESTIMATED CHILDREN ON FLUORIDATED WATER AND SUPPLEMENTAL SCHOOL FLUORIDE MOUTHRINSE PROGRAM**
**GRADES K-6**
**1983**



## Clinical Activities

The Dental Health Mobile Unit started 1983 in Crenshaw County, locating at Highland Home Elementary School during the months of January, February and part of March. There were 201 patients seen for a total of 465 visits, and the dental needs were met for 146 patients.

Beginning in the middle of March, the mobile unit moved to Clay County. Lineville Elementary and Ashland Elementary schools were the two sites. Total visits for the two sites were 365 for 230 patients with 74 completions.

During the summer when schools were closed, the mobile unit went to Autauga County Health Department in Prattville. During part of May and all of June, July and August, 354 patients made 617 visits to the mobile unit; and work was completed for 272 patients.

With the start of school in September, the mobile unit moved to Coosa County. Goodwater Elementary School was the site for September and October, and Rockford was the site for November and December. The total clinical visits in Coosa County were 512 by 296 patients for which 228 were completed.

The mobile unit clinician worked at Auburn city schools on Mondays and Tuesdays starting in October. The 101 patients had all work completed during 156 visits. These totals are for October, November and December 1983.

The yearly totals for the Dental Health Mobile Unit clinician were 1,182 patients, 2,115 visits and 840 completions. Graphs 5-4, 5-5 and 5-6 picture these activities for the two public health areas in which the mobile unit provided services.

Table 5-6 identifies the extensiveness of dental services of the mobile unit while Table 5-7 presents statistics on therapeutic and preventive services.

From January through May of 1983, dental services were provided in Bullock, Lee and Macon counties. Dental services were provided in the local health departments in Bullock and Macon counties. Boykin School in Auburn was the site at which dental services were provided in Lee County.

Table 5-8 gives the kind and number of services provided. Graph 5-7 gives the visits for each county. The therapeutic and preventive services are identified in Table 5-9.

*Jo Rogers provides dental care for West Alabama District Health Department.*

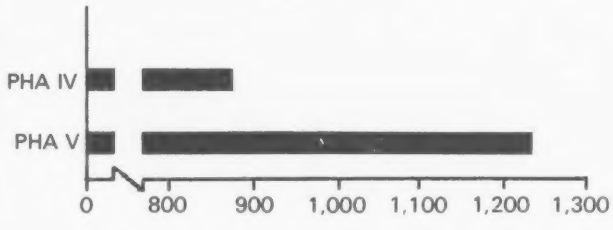
## TABLE 5-5
## FLUORIDE MOUTHRINSE PROGRAM
## 1983

| School System | FMP Duration | Schools | Children | Teachers | Totals |
|---|---|---|---|---|---|
| **Public Health Area I** | | | | | |
| Colbert Co. | Sept-Dec | 2 | 315 | 15 | 330 |
| Colbert Co. Head Start | Jan-Mar | 1 | 140 | 8 | 148 |
| Cullman Co. | Jan-Dec | 6 | 1,500 | 50 | 1,550 |
| Franklin Co. | Jan-Dec | 3 | 575 | 25 | 600 |
| Jackson Co. | Sept-Dec | 6 | 2,070 | 80 | 2,150 |
| Lauderdale Co. | Jan-Dec | 6 | 1,657 | 82 | 1,739 |
| Lawrence Co. | Jan-May | 2 | 715 | 35 | 750 |
| Madison Co. | Jan-Dec | 4 | 2,035 | 78 | 2,113 |
| Marion Co. | Jan-Dec | 6 | 2,010 | 102 | 2,112 |
| Winston Co. | Oct-Dec | 2 | 946 | 21 | 967 |
| | TOTAL | 38 | 11,963 | 496 | 12,459 |
| **Public Health Area II** | | | | | |
| West Alabama District Health Department (Bibb, Fayette, Greene, Hale, Lamar, Pickens & Tuscaloosa counties) | Jan-Dec | 35 | 13,954 | 205 | 14,159 |
| | TOTAL | 35 | 13,954 | 205 | 14,159 |
| **Public Health Area III** | | | | | |
| Blount Co. | Jan-Dec | 6 | 657 | 20 | 677 |
| Stanton Christian (Chilton Co.) | Jan-Dec | 1 | 42 | 4 | 46 |
| Jefferson Co. | Jan-Dec | 2 | 811 | 35 | 846 |
| Shelby Co. | Jan-Dec | 8 | 3,136 | 149 | 3,285 |
| Walker Co. | Jan-May | 3 | 1,260 | 55 | 1,315 |
| Carbon Hill City (Walker Co.) | Jan-Dec | 1 | 280 | 14 | 294 |
| | TOTAL | 21 | 6,186 | 277 | 6,463 |
| **Public Health Area IV** | | | | | |
| Calhoun Co. | Jan-Dec | 7 | 2,444 | 90 | 2,534 |
| Piedmont City (Calhoun Co.) | Jan-Dec | 2 | 818 | 23 | 841 |
| Chambers Co. | Jan-Dec | 2 | 477 | 17 | 494 |
| Cherokee Co. | Jan-May | 6 | 2,090 | 72 | 2,162 |
| Clay Co. | Jan-Dec | 6 | 1,552 | 70 | 1,622 |
| Coosa Co. | Jan-Dec | 5 | 1,300 | 45 | 1,345 |
| DeKalb Co. | Jan-Dec | 3 | 533 | 1 | 534 |
| Etowah Co. | Sept-Dec | 5 | 2,561 | 100 | 2,661 |
| Randolph Co. | Jan-May | 6 | 1,555 | 76 | 1,631 |
| Roanoke City (Randolph Co.) | Jan-May | 1 | 520 | 20 | 540 |
| Talladega Co. | Sept-Dec | 14 | 4,803 | 150 | 4,953 |
| Tallapoosa Co. | Jan-Dec | 2 | 502 | 24 | 526 |
| | TOTAL | 59 | 19,155 | 688 | 19,843 |
| **Public Health Area V** | | | | | |
| Autauga Co. | Jan-Dec | 3 | 893 | 40 | 933 |
| Barbour Co. | Jan-Dec | 5 | 1,480 | 66 | 1,546 |
| Bullock Co. | Jan-Dec | 3 | 1,500 | 35 | 1,535 |
| Butler Co. | Jan-Dec | 4 | 1,777 | 85 | 1,862 |
| Coffee Co. | Jan-Dec | 5 | 969 | 40 | 1,009 |
| Elba City (Coffee Co.) | Jan-May | 2 | 663 | 32 | 695 |
| Noah's Ark School (Coffee Co.) | Jan-Dec | 1 | 60 | 7 | 67 |

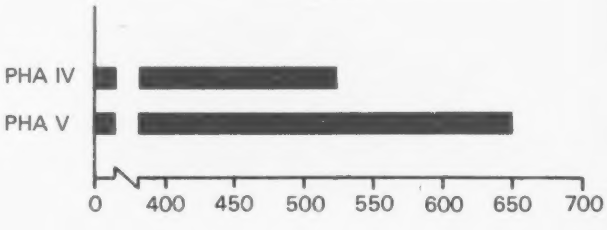
## TABLE 5-5 (continued)
## FLUORIDE MOUTHRINSE PROGRAM
## 1983

| School System | FMP Duration | Schools | Children | Teachers | Total |
|---|---|---|---|---|---|
| **Public Health Area V (cont.)** | | | | | |
| Covington Co. | Jan-Dec | 1 | 245 | 10 | 255 |
| Florala City (Covington Co.) | Jan-Dec | 1 | 275 | 11 | 286 |
| Opp City (Covington Co.) | Jan-Dec | 2 | 1,039 | 39 | 1,078 |
| Crenshaw Co. | Jan-Dec | 2 | 650 | 30 | 680 |
| Dale Co. | Sept-Dec | 5 | 1,600 | 60 | 1,660 |
| Elmore Co. | Jan-May | 3 | 927 | 0 | 927 |
| Edgewood Academy (Elmore Co.) | Jan-May | 1 | 125 | 7 | 132 |
| Geneva Co. | Jan-May | 2 | 648 | 28 | 676 |
| Geneva City (Geneva Co.) | Jan-Dec | 1 | 680 | 40 | 720 |
| Houston Co. | Jan-Dec | 7 | 2,475 | 32 | 2,507 |
| Lee Co. | Oct-Dec | 2 | 650 | 40 | 690 |
| Lowndes Co. | Jan-Dec | 6 | 1,576 | 68 | 1,644 |
| Lowndes Academy (Lowndes Co.) | Jan-Dec | 1 | 187 | 5 | 192 |
| Macon Co. | Oct-Dec | 1 | 230 | 16 | 246 |
| Pike Co. | Jan-Dec | 1 | 275 | 17 | 292 |
| Russell Co. | Jan-Dec | 5 | 1,300 | 26 | 1,326 |
| | TOTAL | 64 | 20,224 | 734 | 20,958 |
| **Public Health Area VI** | | | | | |
| Baldwin Co. | Jan-Dec | 11 | 2,328 | 114 | 2,442 |
| Choctaw Co. | Jan-Dec | 5 | 900 | 5 | 905 |
| Clarke Co. | Jan-May | 6 | 1,975 | 65 | 2,040 |
| Thomasville City (Clarke Co.) | Jan-Dec | 1 | 800 | 32 | 832 |
| Conecuh Co. | Jan-Dec | 7 | 1,709 | 65 | 1,774 |
| Dallas Co. | Oct-Dec | 6 | 2,181 | 91 | 2,272 |
| Escambia Co. | Jan-May | 11 | 2,688 | 48 | 2,736 |
| Brewton City (Escambia Co.) | Jan-Dec | 1 | 556 | 6 | 562 |
| Mobile Co. | Jan-Dec | 33 | 16,724 | 500 | 17,224 |
| Monroe Co. | Jan-Dec | 5 | 1,525 | 75 | 1,600 |
| Perry Co. | Jan-Dec | 4 | 1,047 | 29 | 1,076 |
| Marion City (Perry Co.) | Jan-Dec | 1 | 490 | 6 | 496 |
| Berean Baptist Head Start (Perry Co.). | Dec | 1 | 95 | 10 | 105 |
| Washington Co. | Jan-Dec | 7 | 1,900 | 64 | 1,964 |
| | TOTAL | 99 | 34,918 | 1,110 | 36,028 |
| | GRAND TOTAL | 316 | 106,400 | 3,510 | 109,910 |

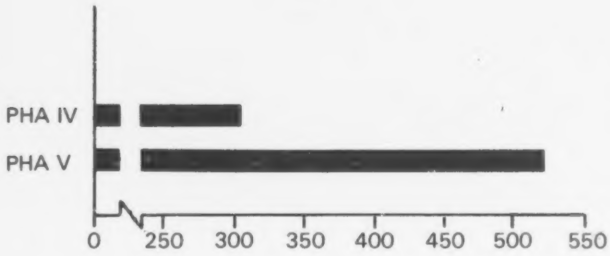
GRAPH 5-4
DENTAL VISITS TO MOBILE UNIT
1983



GRAPH 5-5
MOBILE UNIT DENTAL PATIENTS
1983



## GRAPH 5-6
## COMPLETIONS
## 1983



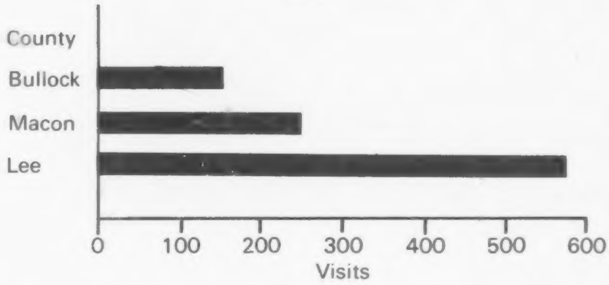
## TABLE 5-6
## DENTAL SERVICES
## DENTAL HEALTH MOBILE UNIT
## 1983

| | |
|---|---|
| Total Visits | 2,115 |
| Number Patients | 1,182 |
| X-rays | 245 |
| Prophylaxis | 73 |
| Topical Fluorides | 1 |
| Patient Educations | 1,110 |
| Sealants | 2,001 |
| Amalgam Surfaces | 2,403 |
| Composite Surfaces | 287 |
| Perio Treatment | 20 |
| Surgery | 126 |
| Others | 49 |
| Completions | 840 |
| Units | 62,556 |

## TABLE 5-8
## DENTAL SERVICES
## BULLOCK, LEE AND MACON COUNTIES
## 1983

| | |
|---|---|
| Examination | 636 |
| X-ray | 281 |
| Prophylaxis | 540 |
| Tropical Fluoride | 63 |
| Patient Education | 318 |
| Sealant | 25 |
| Amalgam Surfaces | 641 |
| Composite Surfaces | 27 |
| Steel Crowns | 5 |
| Endodontics | 15 |
| Perio | 3 |
| Surgery | 47 |
| Other | 13 |
| Completions | 489 |
| Number of Visits | 986 |

## GRAPH 5-7
## DENTAL VISITS
## BULLOCK, LEE AND MACON COUNTIES
## 1983



## TABLE 5-7
## THERAPEUTIC AND PREVENTIVE SERVICES
## DENTAL HEALTH MOBILE UNIT
## 1983

| Type of Service | | Individuals Served | Number Visits |
|---|---|---|---|
| Examination | 720,101 | 1,182 | 1,182 |
| Fluoride | 720,102 | 1 | 1 |
| Prophylaxis | 720,103 | 73 | 73 |
| Emergency | 720,104 | 0 | 0 |
| Restorative | 720,105 | 543 | 1,870 |
| Prosthetic | 720,106 | 0 | 0 |
| Oral Surgery | 720,107 | 126 | 136 |
| Orthodontic | 720,108 | 0 | 0 |
| Sealants | 720,109 | 400 | 400 |
| Others | 720,110 | 39 | 49 |
| | TOTALS | 2,364 | 3,711 |

## TABLE 5-9
## THERAPEUTIC AND PREVENTIVE SERVICES
## BULLOCK, LEE AND MACON COUNTIES
## 1983

| Type of Service | | Individuals Served | Number of Visits |
|---|---|---|---|
| Examination | 720,101 | 636 | 636 |
| Fluoride Applied | 720,102 | 63 | 63 |
| Prophylaxis | 720,103 | 540 | 540 |
| Emergency | 720,104 | 0 | 0 |
| Restorative | 720,105 | 300 | 474 |
| Prosthetic | 720,106 | 0 | 0 |
| Oral Surgery | 720,107 | 47 | 47 |
| Orthodontic | 720,108 | 0 | 0 |
| Sealants | 720,109 | 5 | 5 |
| Others | 720,110 | 13 | 13 |
| | TOTAL | 1,604 | 1,778 |

## Sealant Program

The Bureau of Dental Health has concluded its third consecutive year of using adhesive sealants. A sealant is a type of plastic coating that can be applied to the chewing surface of children's teeth to seal pits and grooves where food and bacteria can be trapped. Dental sealants have been available for more than a decade and are gaining acceptability among both the public and the private sectors. Dental sealants provide a new and exciting approach to the prevention of dental decay.

The extent of the Sealant Program in Alabama has been limited because of the yet to be determined appropriateness of sealant applications in a public health setting. A rural school in Russell County was the site of a Sealant Program this year. With the assistance of an Area National Health Corps dentist, bureau staff examined 118 students in the second, third, seventh and eighth grades. After the number of permanent teeth which are decayed, missing or filled and deciduous teeth indicated for extraction or filling were recorded, sealant candidates were selected; and 82 students received occlusal sealants. Table 5-10 provides data from that program.

TABLE 5-10
SEALANT PROGRAM
FISCAL YEAR 1983

| Grade | Students | Premolars Sealed | Molars Sealed | Total Sealed |
|---|---|---|---|---|
| 2 | 29 | 8 | 82 | 90 |
| 3 | 16 | 18 | 39 | 57 |
| 7 | 24 | 153 | 64 | 217 |
| 8 | 13 | 85 | 41 | 126 |
| TOTAL | 82 | 264 | 168 | 490 |

A demonstration of occlusal sealant application was conducted at Maxwell Air Force Base. Military dentists, hygienists and preventive dental technicians worked cooperatively with state dental personnel applying sealants for several patients at the dental clinic. The latest application techniques and sealant materials were evaluated. The bureau is presently using chemically activated sealant materials and portable dental equipment in the Sealant Program.

The effectiveness of a Sealant Program is measured by retention rates of the sealants placed. If funding permits, the Russell County program will be evaluated at a later date.

## Survey Program

During this year 992 Alabama school children were surveyed by the Bureau of Dental Health. Staff members worked cooperatively with local health departments, school officials and local dental personnel. Portable dental equipment was used at each school site for the screenings. Community involvement was evident in each of the three counties that received the program. Each dental program was somewhat different in nature though all were designed to determine the dental needs of Alabama's children.

In Baldwin County 202 students in the sixth, seventh and eighth grades participated in a toothbrush comparison study in which their gingival and plaque indexes were recorded. The study allowed a five week interval between two separate gingival and plaque scorings. The results of the study are forthcoming. Data on fluorosis, gingival health and permanent teeth which are decayed, missing or filled were gathered for comparison with future studies.

Head Start children in Monroe County were examined and charted to determine the individual dental needs of the 166 children. Head Start funding for the dental problems of children is being studied; therefore the Bureau of Dental Health is serving as a consulting agency to the U.S. Department of Health and Human Services.

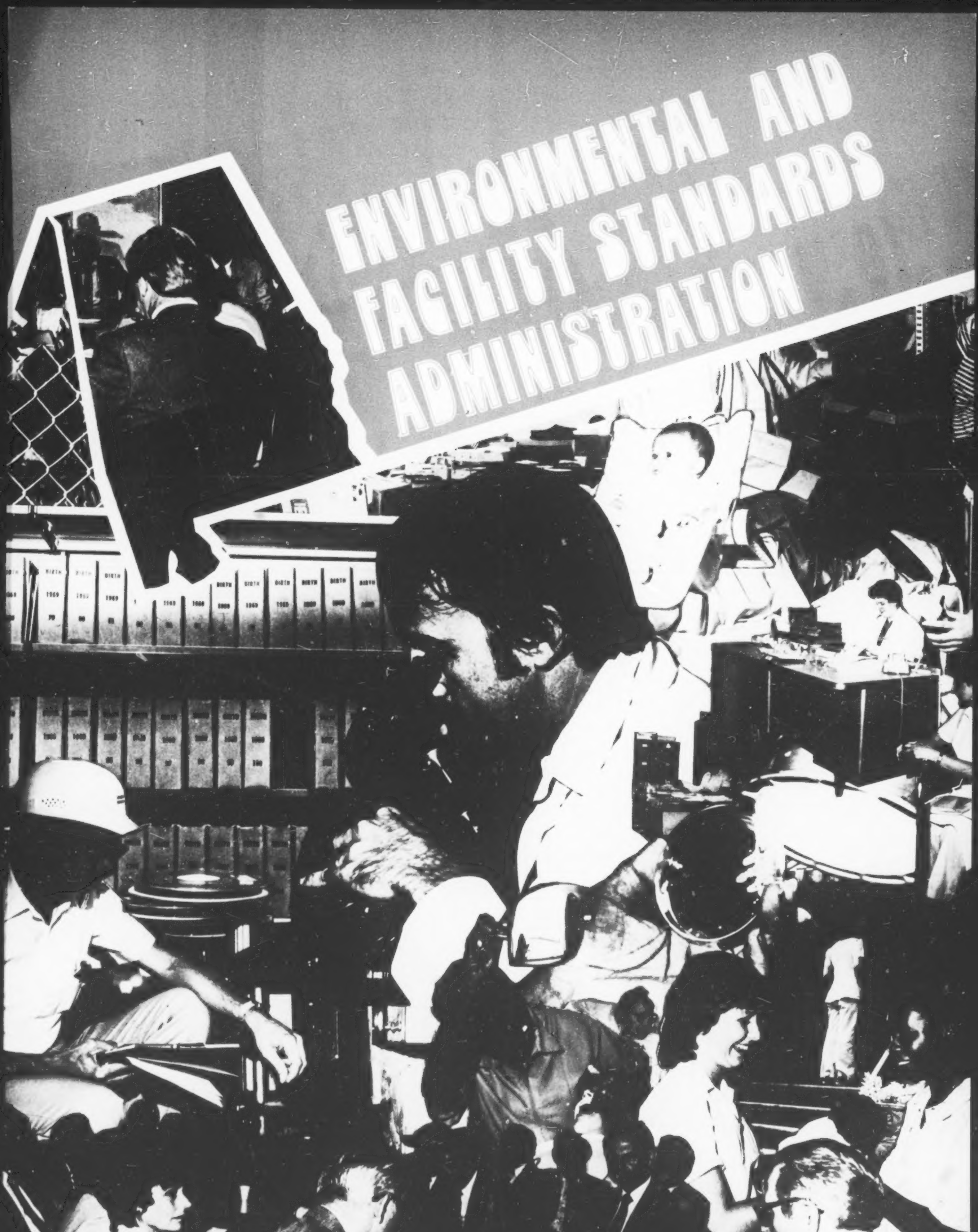
Several Covington County dentists participated in a survey of children ages 7 through 13, from which the data in Table 5-11 were derived.

This survey indicated that 66 percent of the students needed to visit a dentist immediately. The cooperation of the local dental personnel and concerned parents is necessary for the reduction of this percentage. The bureau will continue this type of survey in various areas of the state with the hopes of calling attention to the dental needs of Alabama's children.

TABLE 5-11
DENTAL SURVEY PROGRAM
COVINGTON COUNTY
FISCAL YEAR 1983

| | Males Surveyed | | Females Surveyed | | Total | |
|---|---|---|---|---|---|---|
| Age | Examined | Treatment Recommended | Examined | Treatment Recommended | Examined | Treatment Recommended |
| 7 | 81 | 53 | 92 | 61 | 173 | 114 |
| 8 | 24 | 16 | 25 | 14 | 49 | 30 |
| 9 | 88 | 60 | 76 | 49 | 164 | 109 |
| 10 | 33 | 26 | 30 | 25 | 63 | 51 |
| 11 | 5 | 5 | 2 | 1 | 7 | 6 |
| 12 | 47 | 30 | 82 | 38 | 129 | 68 |
| 13 | 22 | 18 | 17 | 15 | 39 | 33 |
| TOTAL | 300 | 208 | 324 | 203 | 624 | 411 |

# ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION

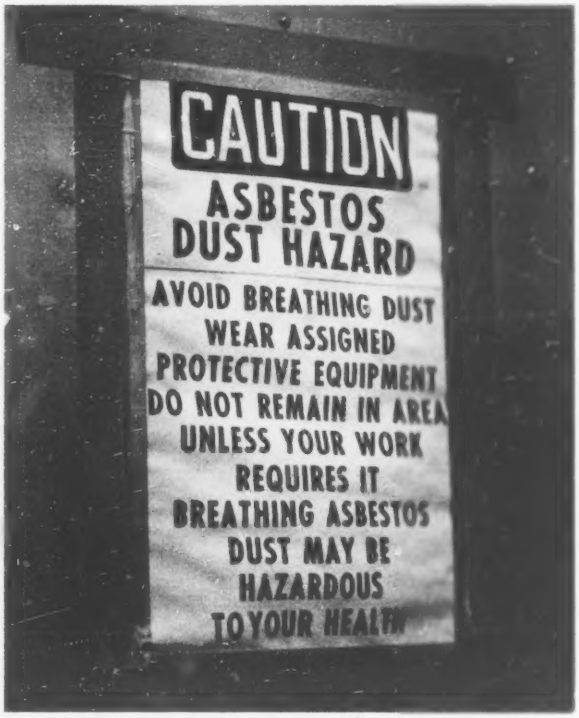


# ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION

Again change characterized this administration with the Bureau of Licensure and Certification being placed under its general supervision and the name being modified to reflect the expanded responsibility. Thus the Environmental and Facility Standards Administration became an entity of the Health Department.

Prior to this reorganization, the Environmental Health Administration provided assistance to Safe State, an agency of the University of Alabama. Under the terms of the contract, which lasted from March until August, the administration supplied one person to serve as an asbestos consultant and to survey local school systems for materials suspected of containing asbestos. In return Safe State provided training in sampling and identifying asbestos' fibers.

Since the expiration of the contract, the administration has begun to acquire the necessary equipment to provide technical assistance with asbestos problems to the general public. It is the agency's goal that within the next fiscal year it will develop the capability to survey other public and private buildings and to identify materials suspected of containing asbestos.



*Precautions should be taken to minimize the dangers associated with asbestos removal.*

**Hearing Aid Dealers Licensure**—In Alabama it is necessary to secure a license to select, fit and sell hearing aids. The Board of Hearing Aid Dealers examines applicants twice a year by administering a two part examination. The examination consists of a written portion and a practical portion which must be passed before the applicant can be licensed.

Activities of the Hearing Aid Dealers Board are administered through the State Health Department. Effective October 1, 1983, the State Health Officer transferred the administrative responsibility from the Bureau of Licensure and Certification to the Environmental and Facility Standards Administration. This transfer in no way alters the activities of the Board of Hearing Aid Dealers but reflects changes in the organizational structure of the department.

Activities of the Board of Hearing Aid Dealers are shown in the following table.

TABLE 6-1
HEARING AID LICENSURE
1979-1983

| Calendar Year | Regular License Renewals | Temporary Permits Issued | Passed Examination | Failed Examination |
|---|---|---|---|---|
| 1979 | 103 | 28 | 12 | 4 |
| 1980 | 98 | 27 | 15 | 4 |
| 1981 | 106 | 55 | 15 | 11 |
| 1982 | 111 | 44 | 11 | 9 |
| 1983 | 115 | 73 | 15 | 8 |

## BUREAU OF GENERAL SANITATION

The Bureau of General Sanitation is composed of the divisions of Waste Disposal and Vector Control.

### Division of Vector Control

The Division of Vector Control has responsibility for surveillance, consultation and training related to vector-borne diseases. Vector control activities for 1983 were expanded to include arbovirus surveillance.

The annual Vector Control Conference with 95 participants was held in Montgomery in March. Cosponsors were the Alabama Department of Public Health, the Alabama Department of Agriculture and Industries, and the Alabama Cooperative Extension Service, Auburn University. Several noteworthy speakers presented sessions on vector control topics.

The division expanded its mosquito surveillance to include surveys in Piedmont, Selma, Coosada, Fort Morgan and Glencoe.

Concern over histoplasmosis in bird roosts led to timed persistent harassment (TPH) contracts in Elmore, Limestone, Montgomery and Tuscaloosa counties.

Fly control was very good this year overall due in part to a better awareness of integrated pest management. Approval for use of Larva-dex® was cancelled in late summer due to a claim that one metalolite was a carcinogen. There was some speculation that this product will gain full approval sometime in 1984.

Four county health departments continued the urban rat control in 1983. Houston, Madison, Mobile and Tuscaloosa counties used pesticides, poison baits, inspection and enforcement to control rats and their parasites. Tuscaloosa discontinued its program in September due to lack of funding.

The division worked with bat infestations to provide exclusion techniques as well as expertise in bat proofing structures in Coffee, Conecuh, Geneva and Montgomery counties. Bat trapping and relocation programs were discontinued due to concern over danger to employees.

Training sessions on vector control topics were presented by division personnel at chapter meetings of the Alabama Environmental Health Association. Vector Control sessions were also presented at the two Basic Environmental Training Courses during the year. Fifteen new environmentalists were given classroom and field instructions in evaluating and correcting vector problems.

**Avian Arbovirus Surveillance**—The 1983 arbovirus surveillance program in Alabama began in May and concluded in September 1983. There were three sampling teams—the Division of Vector Control, the Mobile County Health Department's Mosquito and Rodent Control Division and the Jefferson County Health Department's Division of Community Sanitation. The three sampling teams assessed the mosquito infestation at historic focal points of St. Louis encephalitis to determine whether activity was present. Early emergence of *Culex restuans* in large numbers would have enhanced the potential for SLE, but no activity was found in any of the areas sampled.

Mosquitoes transmit encephalitis from birds to humans and other animals. To determine infection in the host population, blood samples for testing were collected in Autauga, Baldwin, Conecuh, Covington, Dallas, Elmore, Etowah, Geneva, Houston, Jefferson, Lee, Mobile, Montgomery, Shelby and Tuscaloosa counties. The 929 avian serum samples were submitted to the Charles S. Roberts Veterinary Diagnostic Laboratory of the Alabama Department of Agriculture and Industries for testing. Table 6-2 lists the species from which samples were taken. The laboratory used hemagglutination inhibition tests to show acuteness of three encephalitis viruses, Eastern equine encephalitis (EEE), Western equine encephalitis (WEE) and St. Louis encephalitis (SLE) in the samples.

A sample from a young blue jay trapped in Mobile County near Grand Bay in July was found to be a sero-reactor to EEE with an acquired titer of 1:20. Knowledge of this helped the Mobile County Health Department in coordinating increased mosquito spraying in that area and thus minimized the potential equine and human exposure to encephalitis. In Jefferson County English sparrows, mostly juveniles, were sampled from five areas where human encephalitis cases have previously been reported. No sero-positive reactors to SLE were found in the 186 serum samples collected. Pigeon sera were also collected in Etowah and Tuscaloosa counties by the Division of Vector Control with assistance from their health departments. In Tuscaloosa one pigeon was positive for EEE, and one was positive for SLE and EEE, according to CDC. A broader network of surveillance is being planned to provide early detection of these viral infections to minimize risk of human infection.

### TABLE 6-2
### AVIAN SERO SAMPLES
### 1983

| County | Species | No. |
|---|---|---|
| Mobile | Sparrows | 159 |
| | Blue Jays | 141 |
| | Cardinals | 101 |
| | Crackles | 47 |
| | Mockingbirds | 27 |
| | Thrush | 9 |
| | Redwinged Blackbird | 13 |
| | Cowbird | 5 |
| | Redhead Woodpecker | 2 |
| | Brown Thrashers | 5 |
| | Fly Catchers | 3 |
| | Martins | 1 |
| | Meadowlarks | 1 |
| Tuscaloosa | Feral Pigeons | 21 |
| Etowah | Feral Pigeons | 21 |
| Jefferson | English Sparrows | 187 |
| Other Counties | Sparrows | 134 |
| | Starlings | 18 |
| | Crackles | 6 |
| | Barnswallows | 6 |
| | Mockingbirds | 4 |
| | Redwinged Blackbirds | 3 |
| | Brown Thrasher | 3 |
| | Blue Jay | 3 |
| | Cardinal | 2 |
| | Indigobunting | 2 |
| | Wren | 1 |
| | Finch | 1 |
| | Robin | 1 |
| | Turtle dove (non-game) | 1 |
| | Woodpecker | 1 |
| TOTAL | | 929 |

**Encephalitis Cases**—Five horses died of EEE in early July near Robertsdale in Baldwin County. The Division of Vector Control, assisted by personnel from the Baldwin and Mobile County Health Departments, coordinated avian trapping sites in a 30 mile radius of Robertsdale. No sero-reactors were found in the five trapping sites, and no other serologically confirmed cases were reported in Baldwin County.

In mid-September, two colts died of serologically confirmed EEE in the Hacoda community in Geneva County. Again the division, assisted by personnel from the Geneva County Health Department, coordinated two avian trap sites. No sero-positive reactors were found in the flocks that were sampled in Geneva County. According to their owner, the colts had been vaccinated for encephalitis in early summer of 1983. There were no other confirmed equine cases reported in the county.

The enzootic vector *Culeseta melanura*, present due to heavy rainfall in May and June in the Gulf Coast and Wiregrass areas, increased the possibility of EEE early. Floodwater species of *Aedes* and *Psorophora* caused the potential for epizootic condition in those areas, but reported cases were more confined than in 1982.

## Division of Waste Disposal

The Division of Waste Disposal has responsibility for training, consultation and promotion of enforcement of on-site sewage disposal regulations.

Joint plan reviews are performed with local, district and area environmentalists for on-site sewage disposal for subdivisions, schools, septic tank manufacturers, and certain innovative alternative and experimental systems.

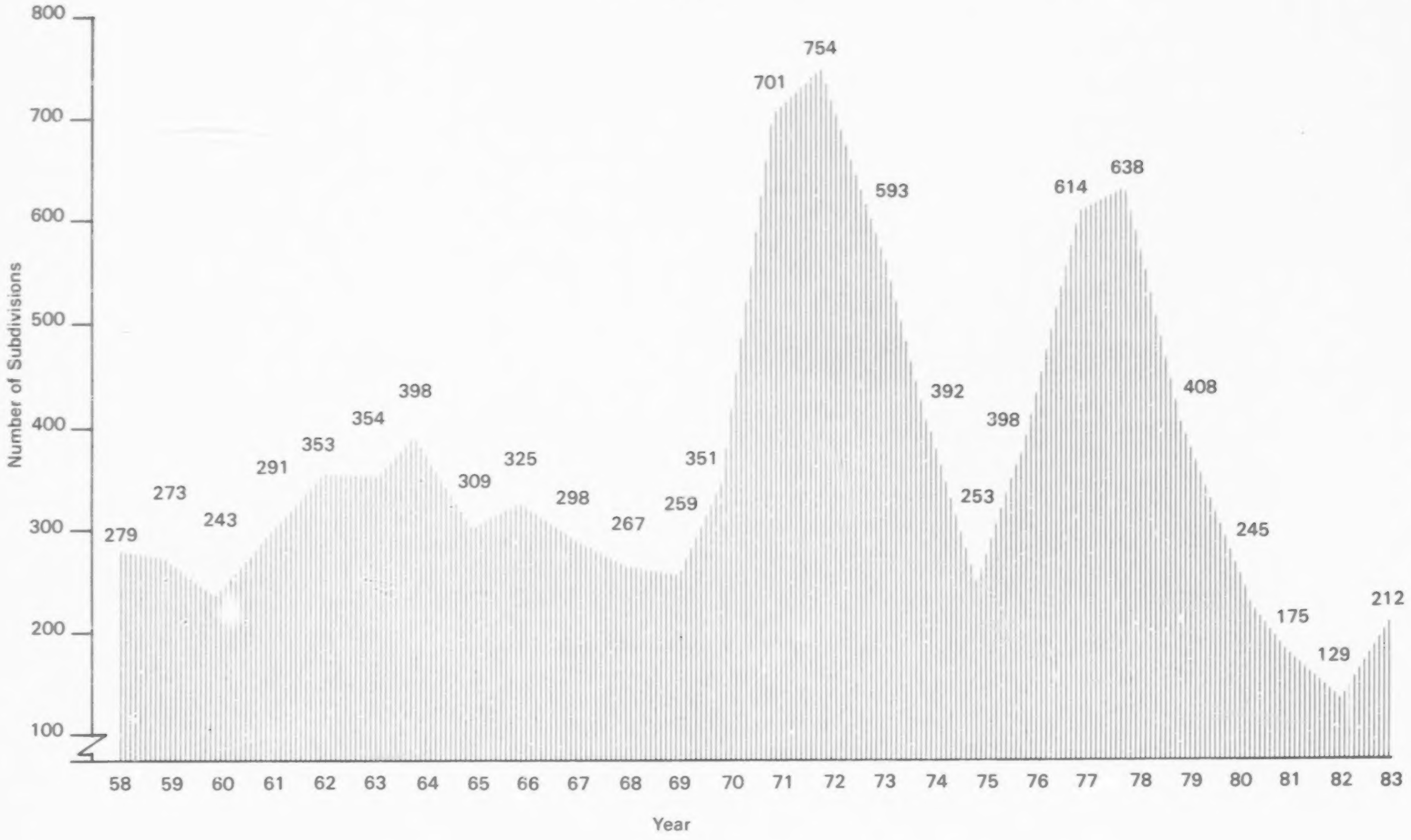
Training was provided for fifteen new environmentalists at the two Basic Environmental Training Courses, one each in Selma and Montgomery. Four continuing education sessions were taught by division personnel in three public health areas to a total of 60 environmentalists and environmental assistants. These sessions centered on the topics of conventional septic tank systems, large septic tank systems and alternative sewage disposal systems. Continuing education was also provided through Environmental Health Association Chapter meetings throughout the state.

Division personnel provided on-the-job training for local environmentalists and engineers in the field in lot and soil evaluation, on-site sewage disposal systems location, and alternatives available for marginal sites and failing sewage disposal systems.

**Subdivision Review Program**—The subdivision program again has three environmentalists after one employee returned from educational leave in November. Of the 292 separate reviews in 1983, the staff approved 118 preliminary and 174 final subdivision plans which had been submitted. Final subdivison reviews showed a 35 percent increase over 1982. The division cooperated with the Public Water Supply Program of the Department of Environmental Management to assure adequate water supplies to subdivisions as well as proper sewage disposal. Graph 6-1 shows the subdivision approval trends since 1958. Table 6-3 gives the 1983 subdivision approvals by counties and public health areas.

*Allen J. Williams listens to a question from a new environmentalist during the Basic Environmental Training Course.*

**GRAPH 6-1**
**SUBDIVISION APPROVALS**
**1958-1983**



## TABLE 6-3
## APPROVED SUBDIVISION PLANS
## 1983

| County | Preliminary | Final |
|---|---|---|
| **PHA I** | | |
| Colbert | 1 | 3 |
| Cullman | 2 | 2 |
| Franklin | 0 | 0 |
| Jackson | 1 | 0 |
| Lauderdale | 2 | 3 |
| Lawrence | 0 | 0 |
| Limestone | 2 | 7 |
| Madison | 12 | 18 |
| Marion | 1 | 2 |
| Marshall | 0 | 0 |
| Morgan | 0 | 0 |
| Winston | 0 | 0 |
| TOTAL | 21 | 35 |
| **PHA II** | | |
| Bibb | 0 | 0 |
| Fayette | 0 | 3 |
| Greene | 0 | 0 |
| Hale | 1 | 2 |
| Lamar | 4 | 1 |
| Pickens | 1 | 0 |
| Tuscaloosa | 6 | 21 |
| TOTAL | 12 | 27 |
| **PHA III** | | |
| Blount | 0 | 1 |
| Chilton | 1 | 1 |
| Jefferson | 22 | 17 |
| St. Clair | 0 | 0 |
| Shelby | 12 | 11 |
| Walker | 4 | 3 |
| TOTAL | 39 | 33 |
| **PHA IV** | | |
| Calhoun | 16 | 18 |
| Chambers | 0 | 0 |
| Cherokee | 2 | 5 |
| Clay | 0 | 1 |
| Cleburne | 1 | 0 |
| Coosa | 0 | 0 |
| DeKalb | 0 | 0 |
| Etowah | 0 | 0 |
| Randolph | 2 | 4 |
| Talladega | 5 | 4 |
| Tallapoosa | 2 | 4 |
| TOTAL | 28 | 36 |

## TABLE 6-3
## APPROVED SUBDIVISION PLANS (continued)
## 1983

| County | Preliminary | Final |
|---|---|---|
| **PHA V** | | |
| Autauga | 2 | 3 |
| Barbour | 1 | 2 |
| Bullock | 0 | 0 |
| Butler | 0 | 0 |
| Coffee | 2 | 5 |
| Covington | 3 | 3 |
| Crenshaw | 0 | 0 |
| Dale | 14 | 10 |
| Elmore | 5 | 4 |
| Geneva | 0 | 0 |
| Henry | 1 | 1 |
| Houston | 2 | 1 |
| Lee | 7 | 7 |
| Lowndes | 0 | 1 |
| Macon | 0 | 0 |
| Montgomery | 0 | 0 |
| Pike | 2 | 2 |
| Russell | 0 | 0 |
| TOTAL | 39 | 39 |
| **PHA VI** | | |
| Baldwin | 9 | 14 |
| Choctaw | 2 | 0 |
| Clarke | 0 | 0 |
| Conecuh | 0 | 0 |
| Dallas | 2 | 2 |
| Escambia | 0 | 0 |
| Marengo | 0 | 0 |
| Mobile | 9 | 25 |
| Monroe | 0 | 0 |
| Perry | 0 | 0 |
| Sumter | 0 | 0 |
| Washington | 0 | 0 |
| Wilcox | 0 | 1 |
| TOTAL | 22 | 42 |
| GRAND TOTAL | 161 | 212 |

The Jefferson County Health Department has subdivision authority by virtue of local legislation. The West Alabama District Health Department has subdivision responsibility assumed under the Primary Enforcement Regulations. Shelby County assumed primary enforcement responsibility for subdivisions in June.

The division assisted with several subdivision surveys at the request of local and area health departments. These requests were due to high percentages of failing on-site sewage disposal systems within certain subdivisions and areas of particular concern in each county. The on-site surveys were preceded by questionnaires being sent to property owners and news releases to the media. These surveys were performed in Jackson, Lauderdale and Etowah counties. Failure rates ranged up to 81 percent. The local health departments are working with property owners and local governments in solving these problems.

**School Sanitation Program**—Final plans for 92 school projects were approved in 1983. The division performed joint plan reviews with local health departments and issued final approval to the State Building Commission. Plan reviews attempt to evaluate the adequate size and function of existing on-site sewage disposal systems and the adequate design of new on-site systems. The division cooperates with the Bureau of Inspection and the Department of Environmental Management in securing comments and requirements for food service areas, air pollution devices (incinerators and coal boilers), water suppliers, lagoons and treatment plants, and class five injection wells (science laboratory and oil inceptor discharges).

Eight new schools were approved during the year. Plans were approved at seven schools for new sewage disposal systems to correct failing on-site sewage disposal systems. These included three schools connected to new lagoons and one school connected to a new on-site sewage disposal system. Three additional schools were connected to lagoons and two to treatment plants for projects that had been approved in 1982.

Thirty-seven sets of plans were held over into 1984. A majority of these were preliminary plans awaiting funding or final plans received just before year's end.

The school plan review section reviewed 263 sets of plans. These included 44 schematic plans, 67 preliminary plans and 118 final or revised final plans. In a continued effort to eliminate unnecessary reviews, 34 projects were analyzed at an early phase and further reviews were not required. School project approvals are shown in Table 6-4.

### TABLE 6-4
### SCHOOL PROJECTS
### 1983

| County | Approved |
|---|---|
| **PHA I** | |
| Colbert | 2 |
| Cullman | 3 |
| Franklin | 1 |
| Jackson | 0 |
| Lauderdale | 0 |
| Lawrence | 0 |
| Limestone | 1 |
| Madison | 4 |
| Marion | 1 |
| Marshall | 1 |
| Morgan | 0 |
| Winston | 0 |
| TOTAL | 13 |
| **PHA II** | |
| Bibb | 2 |
| Fayette | 0 |
| Greene | 2 |
| Hale | 1 |
| Lamar | 0 |
| Pickens | 2 |
| Tuscaloosa | 4 |
| TOTAL | 11 |
| **PHA III** | |
| Blount | 0 |
| Chilton | 1 |
| Jefferson | 12 |
| St. Clair | 0 |
| Shelby | 0 |
| Walker | 1 |
| TOTAL | 14 |
| **PHA IV** | |
| Calhoun | 4 |
| Chambers | 0 |
| Cherokee | 0 |
| Clay | 0 |
| Cleburne | 0 |
| Coosa | 2 |
| DeKalb | 2 |
| Etowah | 8 |
| Randolph | 0 |
| Talladega | 2 |
| Tallapoosa | 0 |
| TOTAL | 18 |
| **PHA V** | |
| Autauga | 2 |
| Barbour | 2 |
| Bullock | 0 |
| Butler | 0 |
| Coffee | 2 |
| Covington | 0 |
| Crenshaw | 0 |
| Dale | 1 |
| Elmore | 2 |
| Geneva | 2 |
| Henry | 0 |
| Houston | 1 |
| Lee | 7 |
| Lowndes | 0 |
| Macon | 1 |
| Montgomery | 1 |
| Pike | 0 |
| Russell | 0 |
| TOTAL | 21 |
| **PHA VI** | |
| Baldwin | 0 |
| Choctaw | 0 |
| Clarke | 2 |
| Conecuh | 1 |
| Dallas | 1 |

### TABLE 6-4
### SCHOOL PROJECTS (continued)
### 1983

| County | Approved |
|---|---|
| Escambia | 0 |
| Marengo | 1 |
| Mobile | 4 |
| Monroe | 1 |
| Perry | 1 |
| Sumter | 0 |
| Washington | 4 |
| Wilcox | 0 |
| TOTAL | 15 |
| GRAND TOTAL | 92 |

**Other Projects**—Approvals were issued for three projects at state institutions, two prisons, one motel and two miscellaneous projects.

**School Survey**—A limited school survey was begun in 1983. Of the 1,424 county and city public schools in Alabama, 940 are served by public sewer; 64 are on treatment plants; 70 are on lagoons; and 350 (25 percent) are on on-site sewage disposal systems. The initial survey based upon site visits by the division staff and local health departments indicated that 34 schools or 9.7 percent had failing systems or positive discharges into ditches or creeks. In most cases work with local school boards to solve these problems has begun. Legal actions were pursued in several cases by local, district and area health officers in order to secure safe and adequate means of sewage disposal at these schools.

**Alternative On-site Sewage Disposal Systems**—Since the division held a five-day training course in February 1982 to instruct local environmentalists on the regulations and the procedures for reviewing plans and specifications for on-site aerobic sewage disposal systems, the local health departments have increasingly become more involved in the approval process for such systems. Consequently the total number of projects reviewed for alternative systems by the division declined from 191 in 1982 to 52 in 1983. The total number of alternative systems installed statewide during 1983, however, is substantially greater than the total for 1982. Two new aerobic devices (Nyadic and United Systems Company) were approved for use in the state during the year. Table 6-5 gives a breakdown by county and public health areas of the number of plans for each type unit reviewed by the division.

### TABLE 6-5
### REVIEW OF PROPOSALS FOR ALTERNATIVE SYSTEMS
### 1983

| | Type Unit Treatment | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| County | Other | Septic Tank & Elevated Bed | Chroma-glass | Mound | Multi-flo | Singulair | Brooks Anti-septic | Jet | Nyadic |
| **PHA I** | | | | | | | | | |
| Limestone | 1 | | | | | | | | |
| Colbert | | | | | | 2 | | | |
| Jackson | | | | | 1 | 1 | | | 1 |
| Lauderdale | | | | | 1 | 1 | | | |
| Madison | 1 | | | | | | | | 1 |
| **PHA III** | | | | | | | | | |
| Blount | | | | | 1 | | | | |
| St. Clair | | | | | | 1 | | | |
| Shelby | | | | 1 | 2 | | | | |
| Walker | | | | | 1 | | | | |
| **PHA IV** | | | | | | | | | |
| Calhoun | | | | | | 1 | | | |
| Cherokee | 1 | | | | | | 1 | | |
| Etowah | | | | | | 2 | | | |
| Randolph | 1 | | | | | | | | |
| Tallapoosa | 2 | | | | | | | | |
| **PHA V** | | | | | | | | | |
| Autauga | 2 | | | | | | | | |
| Elmore | 2 | | | | | | | | |
| Lowndes | | | | 1 | | | | | |
| Montgomery | | 1 | | | | | | | |
| **PHA VI** | | | | | | | | | |
| Baldwin | 4 | 2 | | 8 | 3 | | | | |
| Choctaw | | 1 | | | | | | | |
| Mobile | 2 | | | | 2 | | | | |
| Washington | | | | 1 | | | | | |
| TOTAL | 16 | 4 | 0 | 11 | 10 | 8 | 1 | 0 | 2 |

Since the first aerobic sewage treatment units were installed in the state, many of the warranties for the systems have expired. During 1983 the division made several surveys of such units located throughout the state to determine how well the units were being maintained by the owners. The surveys revealed that the majority of the systems were not being adequately maintained and that there were many disposal problems due not only to lack of maintenance but to improper installation as well. The division will have to address this problem in future training courses and regulations.

Several innovative alternative sewage disposal designs were submitted during the year by engineers under the provisions of Section 2-190 of the Regulations Governing On-site Sewage Disposal Systems. These alternative designs, some of which incorporate dual effluent disposal beds, sand filter beds, evapotranspiration beds and fiber shrouded PVC piping, will allow the use of many acres of land in the state formerly unsuitable for development with on-site sewage disposal systems if the new systems prove reliable.

In cooperation with the Alabama Department of Environmental Management, the division reviews sites for proposed effluent discharges from sewage treatment facilities to streams and impoundments in the state. Acting under this arrangement, the division investigated the sites of four proposed discharge points in 1983. These projects were a 10,000 gallon per day discharge into South Sauty Creek in DeKalb County for a housing project in Henagar, a 45,000 gallon per day discharge into Logan Martin Lake in St. Clair County for Riverside Development, a 90,000 gallon per day discharge into Lay Lake in Shelby County for Paradise Cove Subdivision and a 20,000 gallon per day discharge into Clear Creek in Talladega County for Alpine Bay Resort.

**Septic Tank Manufacturers**—In compliance with the Regulations Governing On-site Sewage Disposal Systems, septic tank manufacturers began submitting plans in 1983 in order to receive a permit for each size septic tank manufactured. The septic tanks were inspected for capacity, construction, standards and structural integrity. Forty-nine manufacturers have submitted plans and received permits. It is estimated that 24 manufacturers have not submitted plans for review.

This program should be fully implemented in 1984, and any septic tank installed in Alabama whether manufactured within or outside Alabama will be labeled with its permit number. Septic tank purchasers, homeowners and environmentalists can then be assured of a quality product manufactured according to standard criteria.

**Audit of On-site Sewage Disposal Programs**—The division initiated a new program during the last quarter of 1983. It consists of evaluating the on-site sewage disposal programs in the local health departments. This program was started in Public Health Area I at the request of the area environmental coordinator. Each audit consists of a review of files, interviews with environmentalists, on-site review of applications to install and septic tank installation practices. Recommendations were made to the environmentalists and health officers on ways to improve on-site sewage disposal programs and enforcement of the Regulations Governing On-site Sewage Disposal Systems. This review procedure has also given the division a better understanding of the problems encountered by the environmentalists at the local level.

**Site Evaluation**—Several states have implemented programs utilizing site evaluators for on-site sewage disposal investigation. The division has been studying methods that emphasize the evaluation of soil characteristics that affect the proper functioning of these systems. The proper evaluation of soil characteristics and site conditions can be used to select the most appropriate means of sewage disposal to overcome limiting soil characteristics and to determine permeability and seasonal water tables at any time of the year instead of requiring performance of soil tests during the wet season. This method can significantly reduce costs and improve the reliability of site evaluation for on-site sewage disposal systems. After the necessary research, guidelines will be formulated for various types throughout the state. Training for people involved in submittal and review of on-site sewage disposal systems can be provided by the division. The division will seek additional input into this program if the preliminary study shows it to be feasible.

## BUREAU OF INSPECTION

Divisions of Food, Milk and Lodging make up the Bureau of Inspection. It provides administrative support in protecting the public in these aspects of the environment.

### Division of Food Sanitation

**General Food Sanitation**—Food surveys and evaluations of county food sanitation programs were made in 27 counties. The average rating score was 75. The score by county is given in Table 6-6. All surveys were made by Food and Drug Administration certified state evaluation officers. Survey recommendations continued to emphasize standardized interpretations of the food regulations and the immediate correction of critical food sanitation violations. Technical assistance and guidance were provided to local and area health units in upgrading local food programs. Seventeen local and supervisory food sanitation employees were standardized by survey officers in the proper identification and reporting of food sanitation violations.

Bureau personnel, in cooperation with assistant state health officers and area environmental health coordinators, devised a plan to raise the average food establishment rating eight to ten points through the accelerated use of official notices to food establishment

## TABLE 6-6
## FOOD SURVEYS
## 1983

| County | Average Rating Score |
|---|---|
| Baldwin | 72.38 |
| Barbour | 73.83 |
| Bibb | 74.00 |
| Bullock | 73.39 |
| Butler | 81.00 |
| Cherokee | 97.60 |
| Chilton | 69.00 |
| Cleburne | 78.00 |
| Crenshaw | 74.10 |
| Dale | 78.00 |
| Dallas | 66.00 |
| Escambia | 68.00 |
| Fayette | 85.00 |
| Geneva | 84.00 |
| Greene | 72.88 |
| Houston | 80.00 |
| Jefferson | 79.00 |
| Lamar | 77.12 |
| Madison | 81.00 |
| Pickens | 66.00 |
| Randolph | 76.95 |
| St. Clair | 72.00 |
| Talladega | 63.00 |
| Tuscaloosa | 69.00 |
| Walker | 69.00 |
| Washington | 70.80 |
| Winston | 86.00 |

*As part of a food establishment inspection, John Hatley checks a dishwasher.*

operators to correct critical sanitation violations within seven days. Public Health Area II adopted the plan and selected the date of January 1, 1984, to implement it. Bureau personnel assisted Area II environmental staff in conducting a one day workshop preparatory to implementing the plan.

Through the Bureau of Inspection 186 intercounty food permits were issued. State and local health personnel jointly made 454 inspections at these intercounty establishments.

Twenty-five Food Manager Training Courses were conducted during the year with an average attendance of 26. This 12 hour training course gives the basics of food sanitation and helps food establishment operators understand not only the rules but the reasons for them. The 16th Annual Food Sanitation Workshop was held at Troy State University June 27-30, 1983. Thirty-nine environmentalists attended this course. The FDA recommended model ordinances were included in the subjects discussed during this workshop.

State and county health departments made food inspections under contracts with other agencies. Contracts with the State Department of Education were signed for inspections at summer feeding facilities and for monthly school food service inspections. Local health departments received $25,754 for making 1,074 inspections of sites at which food was served during the summer. Also local health employees made 11,520 school inspections during the year. The State Health Officer contracted with the U.S. Food and Drug Administration to inspect food manufacturing firms engaged in interstate commerce. Bureau of Inspection staff were designated to make these inspections and report to FDA.

**Retail Frozen Dessert**—From the 1,448 retail frozen dessert establishments in Alabama, 11,864 samples were collected and analyzed in 1983. The average compliance for bacterial standards was 72.9 percent. The compliance in each county is shown in Table 6-7. The rate of compliance was 78.4 for PHA I, 74.2 for PHA II, 74.6 for PHA III, 71.5 for PHA IV, 73.2 for PHA V and 60.6 for PHA VI.

Retail freezers were inspected by county environmentalists as a part of the routine establishment inspection. Establishment evaluation is included in annual food surveys.

Three instructional courses on cleaning and operating retail frozen dessert freezers were conducted by Bureau of Inspection personnel.

## TABLE 6-7
## RETAIL FROZEN DESSERT COMPLIANCE
## 1983

| County | Total Samples | Total Samples High | Percent in Violation | Percent in Compliance |
|---|---|---|---|---|
| **PHA I** | | | | |
| Colbert | 193 | 30 | 15.5 | 84.5 |
| Cullman | 206 | 44 | 21.4 | 78.6 |
| Franklin | 94 | 28 | 29.8 | 70.2 |
| Jackson | 145 | 40 | 27.6 | 72.4 |
| Lauderdale | 283 | 65 | 23.0 | 77.0 |
| Lawrence | 58 | 8 | 13.8 | 86.2 |
| Limestone | 153 | 29 | 19.0 | 81.0 |
| Madison | 831 | 150 | 18.0 | 82.0 |
| Marion | 135 | 29 | 21.5 | 78.5 |
| Marshall | 167 | 63 | 37.7 | 62.3 |
| Morgan | 328 | 72 | 22.0 | 78.0 |
| Winston | 43 | 11 | 25.6 | 74.4 |
| **PHA II** | | | | |
| Bibb | | | | |
| Fayette | 77 | 18 | 23.4 | 76.6 |
| Greene | | | | |
| Hale | 14 | 2 | 14.3 | 85.7 |
| Lamar | | | | |
| Pickens | | | | |
| Tuscaloosa | 697 | 184 | 26.4 | 73.6 |
| **PHA III** | | | | |
| Blount | 59 | 17 | 28.8 | 71.2 |
| Chilton | 45 | 17 | 37.8 | 62.2 |
| Jefferson | 1,752 | 425 | 24.2 | 75.8 |
| St. Clair | 111 | 33 | 29.7 | 70.3 |
| Shelby | 208 | 67 | 32.2 | 67.8 |
| Walker | 173 | 38 | 22.0 | 78.0 |
| **PHA IV** | | | | |
| Calhoun | 516 | 149 | 28.9 | 71.1 |
| Chambers | 129 | 36 | 27.9 | 72.1 |
| Cherokee | 73 | 24 | 32.9 | 67.1 |
| Clay | 26 | 8 | 30.8 | 69.2 |
| Cleburne | 39 | 7 | 17.9 | 82.1 |
| Coosa | 8 | 2 | 25.0 | 75.0 |
| DeKalb | 168 | 49 | 29.2 | 70.8 |
| Etowah | 428 | 113 | 26.4 | 73.6 |
| Randolph | 38 | 12 | 31.6 | 68.4 |
| Talladega | 176 | 55 | 31.3 | 68.7 |
| Tallapoosa | 153 | 45 | 29.4 | 70.6 |

## TABLE 6-7
## RETAIL FROZEN DESSERT COMPLIANCE (continued)
## 1983

| County | Total Samples | Total Samples High | Percent in Violation | Percent in Compliance |
|---|---|---|---|---|
| **PHA V** | | | | |
| Autauga | 70 | 18 | 25.7 | 74.3 |
| Barbour | 63 | 24 | 38.1 | 61.9 |
| Bullock | 18 | 12 | 66.7 | 33.3 |
| Butler | 82 | 39 | 47.6 | 52.4 |
| Coffee | 142 | 22 | 15.5 | 84.5 |
| Covington | 157 | 45 | 28.7 | 71.3 |
| Crenshaw | 31 | 18 | 58.1 | 41.9 |
| Dale | 96 | 21 | 21.9 | 78.1 |
| Elmore | 105 | 28 | 26.7 | 73.4 |
| Geneva | 61 | 20 | 32.8 | 67.2 |
| Henry | 15 | 9 | 60.0 | 40.0 |
| Houston | 492 | 113 | 23.0 | 77.0 |
| Lee | 416 | 108 | 26.0 | 74.0 |
| Lowndes | | | | |
| Macon | 33 | 14 | 42.4 | 57.6 |
| Montgomery | 884 | 205 | 23.2 | 76.8 |
| Pike | 72 | 25 | 34.7 | 65.3 |
| Russell | 130 | 47 | 36.2 | 63.8 |
| **PHA VI** | | | | |
| Baldwin | 183 | 68 | 37.2 | 62.8 |
| Choctaw | 6 | 3 | 50.0 | 50.0 |
| Clarke | 136 | 54 | 39.7 | 60.3 |
| Conecuh | 38 | 16 | 42.1 | 57.9 |
| Dallas | 136 | 31 | 22.8 | 77.2 |
| Escambia | 136 | 50 | 36.8 | 63.2 |
| Marengo | 64 | 17 | 26.6 | 73.4 |
| Mobile | 646 | 305 | 47.2 | 52.8 |
| Monroe | 40 | 12 | 30.0 | 70.0 |
| Perry | 27 | 2 | 7.4 | 92.6 |
| Sumter | 25 | 5 | 20.0 | 80.0 |
| Washington | 23 | 12 | 52.2 | 47.8 |
| Wilcox | 11 | 5 | 45.5 | 54.5 |

**Seafood**—During 1983 the State Health Officer issued ten orders effecting opening or closing of oyster growing areas in Mobile Bay. These actions were taken in conjunction with the Alabama Department of Conservation and Natural Resources.

Heavy rains and high river flow during the winter and spring months of 1983 and again in December 1983 resulted in the closure of Alabama's principal oyster growing area, Cedar Point, for 49 days. All conditionally approved reefs were open for production at the end of the year. During 1983, 426 sea water samples were collected from waters in Alabama to assure compliance with State Board of Health standards.

In 1983 a significant quantity of oysters came from Alabama waters, but oysters from Mississippi, Louisiana and Texas were also used.

Effective October 1, 1983, bacterial standards for shellfish were changed from fecal coliform to *Escherichia coli*. From January 1, 1983, until September 30, 1983, 152 shellstock samples were collected from plants. Sixty-one or 40.1 percent of them did not meet the fecal coliform standards. From October 1, 1983, until December 31, 1983, a total of 54 samples was collected. Of these, none exceeded the new *E. coli* standards. For the year 206 samples were collected for bacterial examination.

Permits for oyster processing are issued on a yearly basis, beginning October 1 and ending September 30. At the end of 1983 there were 53 processing plants permitted. These, as far as can be determined, are the most plants ever permitted in Alabama and present problems for environmentalists to inspect them frequently enough.

Twenty-three permits were issued for crab picking plants during 1983. Many of the plants are small, family-type shops, or they are seasonal shops and only work part of the year. Routine inspection and water supply samples were conducted at all shops during the season.

Sampling again shows that a high percentage of samples do not meet the fecal coliform standards. Possibly crab meat would show truer quality if it were on an *E. coli* standard.

## Division of Lodging Sanitation

At the present time 507 hotels and motels are licensed to operate in Alabama. During the last year the Bureau of Inspection issued 532 permits but due to closing and name changes, 25 of the hotels no longer operate.

A total of 1,363 inspections was conducted during the 1983 year. Based on 507 hotels now operating, the average inspection frequency for 1983 was 2.69 per establishment. It must be noted that the frequency of inspection was changed from quarterly to biannually in January of 1983.

In 1982 the proposed Camp Sanitation Regulations were revised. In 1983 the Model Camp Sanitation Regulations prepared by this office were presented to the counties for their individual adoption. Eight counties in Public Health Area IV adopted these model regulations and began the process of inspection and enforcement.

There continues to be interest by the Camping Association for uniform statewide Camp Sanitation Regulations to be adopted by the State Board of Health. The experience gained within Area IV during 1983 will provide necessary information to address camp sanitation problems more adequately through a statewide regulation in the future.

**Jail and Prison Program**—Alabama currently has 10 major prisons, 15 work release facilities, one employee housing facility, one food storage warehouse and one food processing plant. During 1983, 282 food service inspections and 60 lodging inspections were conducted.

A food survey conducted in November and December at the Alabama Department of Corrections facilities produced an average rating score of 88. This score is an increase of 11 points over the October 1982 food survey.

Currently, there are 247 jails located within Alabama. Local health department environmentalists conducted a total of 987 inspections of these county and city confinement facilities.

## Division of Milk Sanitation

At the end of 1983, 430 producer dairies, 24 milk and frozen dessert plants, and four single-service container plants were located in Alabama. Eighty-five permits were issued to out-of-state processing plants. In addition 72 bulk milk haulers and 37 bulk milk tankers received permits.

Personnel of the Division of Milk Sanitation made inspections at 2,699 dairy farms, 204 milk and frozen dessert plants, and 32 single-service container plants. These with inspections of 61 delivery vehicles, 53 bulk haulers and 36 tank trucks make a total of 3,085 by the division.

Plans for 24 new or remodeled barns and two milk plants as well as plans for equipment changes at ten dairies and three plants were reviewed.

The California Mastitis Test Kit was used to check 1,129 cows from 16 herds. One hundred fifty-six individual quarter samples from cows were collected and submitted to the State Diagnostic Laboratory for identification of organism and sensitivity.

There were 4,217 samples of raw milk collected at the farm. The limit for the Wisconsin Mastitis Test was exceeded in 519 of these samples. The 194 samples which exceeded the direct microscopic cell count standards were 85 fewer than the previous year. But 255 samples exceeded the standard plate count criteria. Four were positive for growth inhibitors, and five contained added water. A total of 389 of the samples exceeded the established standards. Compliance increased from 87.1 to 90.8 percent.

Ninety-four of 914 commingled raw milk samples exceeded established standards. Ninety-two had unacceptable bacteria counts, and two were positive for growth inhibitors. Compliance for commingled raw milk samples increased from 87.4 to 89.7 percent.

Results of laboratory examination for 5,311 pasteurized milk, milk products and frozen dessert samples show that 363 violated coliform standards and that 160 had unacceptable bacteria counts. Three samples were positive for phosphatase, and two were positive for growth inhibitors. Compliance increased from 92.3 to 93.2 percent for coliform and from 95.6 to 97 percent for standard plate count.

The 43 official notices issued to farms for sanitation violations resulted in one permit suspension. Thirteen permits were suspended following 48 notices for standard plate count violations. Ten somatic cell violations resulted from 37 notices.

Twenty-four notices for coliform violations, 22 for standard plate count violations and one for adulteration with growth inhibitors issued to plants resulted in two suspensions of products from the market. One notice was issued to a plant for sanitation violations.

# BUREAU OF RADIOLOGICAL HEALTH

Regulating all sources of ionizing radiation except reactors is the responsibility of the Bureau of Radiological Health. Response to an ionizing radiation emergency would require the unique capabilities which this bureau has. It coordinates activities to maintain readiness with other state agencies.

## Radioactive Materials Division

At the end of the year 425 specific licenses to use radioactive materials were active. The number of licenses for each type are listed in Table 6-8. Twenty-one new licenses and 358 amendments to licenses were issued in 1983. These represent an increase of 17 percent for the year.

TABLE 6-8
RADIOACTIVE MATERIAL LICENSES
1983

| | |
|---|---|
| Medical | 128 |
| Academic | 32 |
| Industrial | 215 |
| Civil Defense | 2 |
| Other | 48 |
| TOTAL | 425 |

During 1983 the bureau conducted 105 inspections of licenses. Seven incidents involving radioactive materials were reported to the bureau, and two sources remained lost at the end of 1983.

*Tony Giggy with Alabama Emergency Management Agency observes Radiological Health Activity during a nuclear emergency test exercise. Aubrey Godwin was a participant.*

## X-ray Compliance Division

In addition to the X-ray equipment in Jefferson County, there are 3,682 units in the rest of the state. Jefferson County conducts its own program. The inventory of X-ray equipment is recorded in Table 6-9.

TABLE 6-9
REGISTERED X-RAY MACHINES
1983

| | |
|---|---|
| Dental | 1,707 |
| Physicians and Clinics | 708 |
| Hospitals | 809 |
| Chiropractic | 192 |
| Veterinarians | 149 |
| Podiatrists | 16 |
| Industrial | 101 |
| TOTAL | 3,682 |

The bureau's report of the number of these units inspected is shown in Table 6-10. Inspection revealed that 27 percent of the facilities and 6 percent of the machines did not comply with regulations.

TABLE 6-10
X-RAY INSPECTION MACHINES DATA
1983

| | |
|---|---|
| Dental | 675 |
| Physicians and Clinics | 265 |
| Hospitals | 208 |
| Chiropractic | 93 |
| Veterinarians | 72 |
| Podiatrists | 9 |
| Industrial | 21 |
| TOTAL | 1,343 |

## Emergency Planning and Environmental Monitoring Division

The Bureau of Radiological Health continued to devote considerable time to revising and updating the State Radiation Emergency Plan so that it complies with revised federal criteria. These criteria require public meetings and exercises at the Browns Ferry Nuclear Plant and the J.M. Farley Nuclear Plant. Additional equipment requiring major expenditure was acquired in 1983 because of the new criteria. The State Radiation Emergency Plan for Farley has been approved by the Federal Emergency Management Agency (FEMA), but the same plan has not been approved for Browns Ferry. The bureau has not been informed of any deficiencies since the plan was forwarded to FEMA in August 1982.

## BUREAU OF LICENSURE AND CERTIFICATION

In 1983 the Bureau of Licensure and Certification was merged with the Environmental Health Administration. The assimilation is reflected in the name change to the Environmental and Facility Standards Administration with the bureau being a unit of that administration.

### Certification Division

The Certification Division determines whether health care providers comply with the criteria for participation in Medicare and Medicaid programs. Facilities, agencies and individuals must meet federal and state standards if either program is to reimburse them for providing health care. The division applies federal laws and regulations as well as any applicable state and local requirements when surveying providers to determine certification status and participation eligibility.

The Bureau of Licensure and Certification has an agreement with the Department of Health and Human Services to survey health care providers for Medicare certification and with the Alabama Medicaid Agency for Medicaid certification. In addition the bureau contracts with the Alabama Medicaid Agency to determine civil rights compliance which must be certified before a provider can participate in Medicare and Medicaid programs.

Table 6-11 gives the number of health care providers which were participating in each program during 1983. With few exceptions providers participated in both programs. Intermediate care facilities were eligible for Medicaid certification only. In a few instances providers elected to participate in only one program.

TABLE 6-11
MEDICARE/MEDICAID PARTICIPANTS
1983

| Provider | Medicare | Medicaid |
|---|---|---|
| Hospitals | 138 | 133 |
| Skilled Nursing Homes | 194 | 192 |
| Skilled Nursing Homes with ICF Certification | | 190 |
| Intermediate Care Facilities (ICF) | | 22 |
| Intermediate Care Facilities for the Mentally Retarded (ICF/MR) | | 5 |
| Home Health Agencies | 108 | 88 |
| Independent Laboratories | 58 | 58 |
| Rural Health Clinics | 8 | |
| Renal Dialysis Facilities | 24 | |
| Rehabilitation Centers | 8 | |
| Independent Physical Therapists | 28 | |
| Portable X-ray | 1 | |
| Ambulatory Surgical Centers | 1 | |
| Chiropractors | 302 | |

Activities and staff had to be reduced when federal funding was cut approximately 35 percent in 1981. During 1983 funding was restored to near the level it had been prior to the reduction. Consequently efforts to recruit and train other staff to achieve program objectives has been necessary.

Many changes in the Medicare and Medicaid programs have been initiated following Congressional legislation. Payment for new types of service--ambulatory surgical centers, hospices and comprehensive outpatient rehabilitation facilities for example—has been added. Prospective payment to hospitals was initiated with the requirement that psychiatric and rehabilitation units be excluded. These changes along with greater emphasis on quality patient care has significantly increased the responsibilities of the Certification Division.

During 1983 changes in ownership of 39 health care facilities required considerable coordination between the Certification Division and the facilities involved.

### Field Services Division

With an increase in federal funding for Medicare and Medicaid survey responsibilities, additional health care professionals were added to the Field Services Division. These additional funds allowed the division to employ two additional registered nurses, two patient services specialists and two additional medical adminstrative surveyors. With the new personnel and the nucleus of the remaining staff, the division was able to resume annual on-site field surveys and follow-up assessments to each long-term care facility within the state. The increase in survey team composition strengthened the inspection process and proved to be a key factor in the quality of survey results obtained.

During the past year the division was charged with the responsibility of inspecting four new categories of health care providers or facilities. These are comprehensive outpatient rehabilitation facilities, ambulatory surgical centers, hospices, and domiciliary or small group homes. The passing of new domiciliary or small group home regulations significantly increased the work load of the division due to the large number of group homes being operated throughout the state. Also added to the division's responsibility was the review of criteria for exclusion of hospitals under the new Prospective Payment System (Public Law 98-21).

With the increase in funding and personnel, professional consultation visits were intensified to assist health care providers in meeting federal and state regulations. During the past year the division provided ten statewide workshops to long-term care facilities relating to new federal requirements in utilization review and pharmaceutical services. Field activities for calendar year 1983 are summarized in Table 6-12.

Also during 1983, 335 civil rights reviews were conducted in hospitals, nursing homes and related

### TABLE 6-12
### FIELD SERVICE ACTIVITIES
### 1983

| Facility Classification | Licensure Inspections | Certification Surveys | Post-Cert. Visits | Title VI Surveys | Consultation Visits | Complaints Special Inv. |
|---|---|---|---|---|---|---|
| Hospitals | 36 | 211 | 55 | 127 | 3 | 23 |
| Nursing Homes | 261 | 369 | 343 | 185 | 95 | 183 |
| Cerebral Palsy Treatment Centers | 2 | — | — | — | — | — |
| Domiciliary Care Facilities | 41 | — | — | — | — | — |
| Health Maintenance Organizations | 1 | — | — | — | — | — |
| Independent Clinical Laboratories | 87 | 60 | 14 | — | 4 | 11 |
| Maternity Homes | 2 | — | — | — | — | — |
| Rehabilitation Centers | 13 | 10 | 1 | — | — | 3 |
| End Stage Renal Dialysis Facilies | 45 | 35 | 12 | — | — | 4 |
| Home Health Agencies | — | 103 | 22 | 23 | — | 4 |
| Independent Physical Therapists | — | 8 | — | — | — | — |
| Rural Health Clinics | — | 21 | 4 | — | — | — |
| Intermediate Care Facilities/ Mental Retardation | — | 8 | 17 | — | — | 6 |
| Unlicensed Nursing Facilities (Small Group Home) | 155 | — | — | — | — | 20 |
| Abortion Clinics | 22 | — | — | — | — | 4 |
| Clinical Laboratories Improvement Act | — | 4 | — | — | — | — |

facilities. The division assisted facilities in initiating and following through on affirmative action plans. These plans were developed for those facilities whose patient census was not in parity with the racial percentages of their service areas. Table 6-13 gives a comparative occupancy percentage for alternate years since 1971.

### TABLE 6-13
### COMPARATIVE OCCUPANCY PERCENTAGE
### ALTERNATE YEARS
### 1971-1983

| | Multiracial | White Only | Nonwhite Only |
|---|---|---|---|
| 1971 | 62.3 | 32.1 | 5.6 |
| 1973 | 83.6 | 15.3 | 1.1 |
| 1975 | 89.9 | 9.5 | 0.6 |
| 1977 | 94.7 | 4.5 | 0.8 |
| 1979 | 97.0 | 3.0 | 0.0 |
| 1981 | 97.0 | 3.0 | 0.0 |
| 1983 | 96.0 | 4.0 | 0.0 |

## Licensure Division

Inspections to determine the degree of compliance with the appropriate statutes and regulations were conducted at each health care facility subject to licensure inspection. The results of these inspections were reviewed and evaluated before recommendations were submitted to the Licensure Advisory Board regarding the type of license to be issued to each facility for the next year. Health care facilities are licensed annually on a calendar year basis. The Licensure Advisory Board reviewed the recommendations and forwarded them to the State Committee of Public Health for appropriate action.

The State Committee of Public Health approved the issuance of eight probational licenses and 36 temporary licenses. All other facilities received regular licenses. A probational license is issued to a facility which does not comply with State Board of Health requirements but does not endanger the health or safety of patients and is in the process of complying. A temporary license is issued to all new facilities until they establish a history of compliance or to a facility which temporarily does not comply but has an approved plan to achieve compliance.

The problem of unlicensed health care facilities, primarily nursing homes, continued to be an issue within Alabama. To help alleviate this problem a revision of the existing rules affecting domiciliary care facilities was begun during 1982. This revision was culminated July 20, 1983, with the adoption of new rules which became effective August 25, 1983. These rules make licensure more feasible for small group, non-institutional homes and broaden the scope of alternative care. Since the effective date of the new domiciliary rules, there have been 36 additional domiciliaries inspected and licensed.

Currently the Licensure Division is involved in a two year research project with the Mitchell-Hollingsworth Annex to Eliza Coffee Memorial Hospital to determine the need for respite care units in conjunction with nursing homes. The respite care unit, non-medical in model, is designed to give relief to families who maintain an individual at home who requires a supervised environment. It is anticipated that the clientele will be geriatric; however the project is non-exclusionary.

The Licensure Division in association with Alabama nursing homes continues to provide advice and guidance to as well as monitoring of the visiting pet programs. These programs, governed by protocols developed by the Alabama Veterinary Associaiton and the bureau, are designed to use the therapeutic benefits of human relationships witn animals in the care of residents in nursing homes.

*Tignor Zorn participates in a discussion about health care facilities. Dr. Myers is concerned about the events.*

During the past year the division cooperated with the Bureau of Primary Prevention in applying for and receiving a pilot project from the United States Food and Drug Administration to inform hospitals of a system for reporting defective medical devices. The program will enable FDA to compile comprehensive failure rates by product and manufacturer and thereby to improve their standards. This improvement will translate into better care and services for people not only of Alabama but also of the nation.

As the health care industry is a dynamic and evolving science and always innovative in approaches to provide care and services, the Licensure Division is constantly aware of changing times. To meet the public's need for assurance of quality care and service, the division has begun preliminary work on determining the need for licensure requirements for free-standing child bearing centers and for hospice care facilities and in the future will be presenting the Licensure Advisory Board with recommendations in these areas.

Table 6-14 documents the type of health care facilities licensed in Alabama.

**TABLE 6-14**
**LICENSURE OF HEALTH CARE FACILITIES**
**1983**

| Type of Facility | Number of Facilities | Number of Beds |
|---|---|---|
| Hospitals | 138 | 19,933 |
| Nursing Homes | 225 | 21,307 |
| Maternity Homes | 2 | 46 |
| Cerebral Palsy Treatment Centers | 2 | 99 |
| Domiciliaries | 51 | 1,135 |
| Independent Clinical Laboratories | 87 | 0 |
| Rehabilitation Centers | 9 | 100 |
| End Stage Renal Disease Treatment Centers | 24 | 0 |
| Abortion Centers | 9 | 0 |
| Health Maintenance Organizations | 1 | 0 |

## Plans and Construction Division

To ensure safe, functional and efficient health facilities, the Plans and Construction Division reviews plans and inspects buildings that house licensed health care facilities.

The division enforces the building regulations which the State Board of Health has established as a part of the licensing requirements for hospitals, nursing homes, end stage renal dialysis centers, rehabilitation centers, health maintenance organizations, abortion clinics, ambulatory surgical treatment facilities and domiciliaries. These standards prescribe necessary functional elements, establish minimum requirement for the patient environment, and require that construction meets specified building, fire and safety codes.

A condition for participation in Medicare and Medicaid is that hospitals and nursing homes maintain their buildings in compliance with the Life Safety Code of the National Fire Protection Association. The division makes annual inspections, reviews plans, consults and performs necessary follow-up work to enforce this program at all hospitals (except those accredited by the Joint Commission of Accreditation of Hospitals) and nursing homes in Medicare and Medicaid programs. Division staff performing these tasks act in their role of assistant state fire marshalls.

Staff training, fire drills, evacuation plans, fire control procedures, disaster plans and smoking regulations are incorporated in the fire safety consultation and education program.

Architectural and engineering services are extended to the State Health Planning and Development Agency. These services include:

1. Review schematic plans submitted with Certificate of Need applications.
2. Review plans for federally funded projects which are not licensed by the Bureau of Licensure and Certification as well as make inspections during construction.
3. Make inspections of facilities to evaluate size of each department or adequacy of the facility.
4. Make on-site visits to determine bed capacity.
5. Review contract documents for all construction projects.

Federally aided health projects, including those given grants and loan guarantees, are also reviewed and inspected by this office. The federal agencies which receive these services include the Department of Health and Human Services, the Department of Housing and Urban Development, the Appalachian Regional Commission, and the Farmers Home Administration.

The health care industry has become so complex with continual innovations in equipment and services that buildings must be more flexible and expandable. Long-range planning is already saving millions of dollars both in construction and increased efficiency of personnel. The architect and construction specialists of the division work with every health facility involved in construction and their architects and engineers to ensure that buildings are designed and built to be as functional as possible and to respond to the needs of the future.

The time frame of these projects can vary from six months of planning and six months of construction to several years of planning and three or four years of construction where renovations and new construction is phased. Most projects are in planning and construction for at least two years. Table 6-15 shows the number of projects which began planning in 1983, based on the date that the project number was issued.

### TABLE 6-15
### PROJECTS WITH PLANNING INITIATED IN 1983

| | Projects | Beds | ESRD Stations |
|---|---|---|---|
| Hospitals | 33 | 1,145 | |
| Nursing Homes | 14 | 971 | |
| End Stage Renal Disease Centers | 12 | | 80 |
| Domiciliaries | 4 | 369 | |
| Other | 13 | 50 | |

The number of hospital beds includes 603 new replacement beds.

The number of nursing home beds includes 161 new replacement beds.

Those figures do not include projects which were for equipment only.

The budget for these projects amounts to $154,973,000.

# BUREAU OF EPIDEMIOLOGY AND CONSULTATION

# BUREAU OF EPIDEMIOLOGY AND CONSULTATION

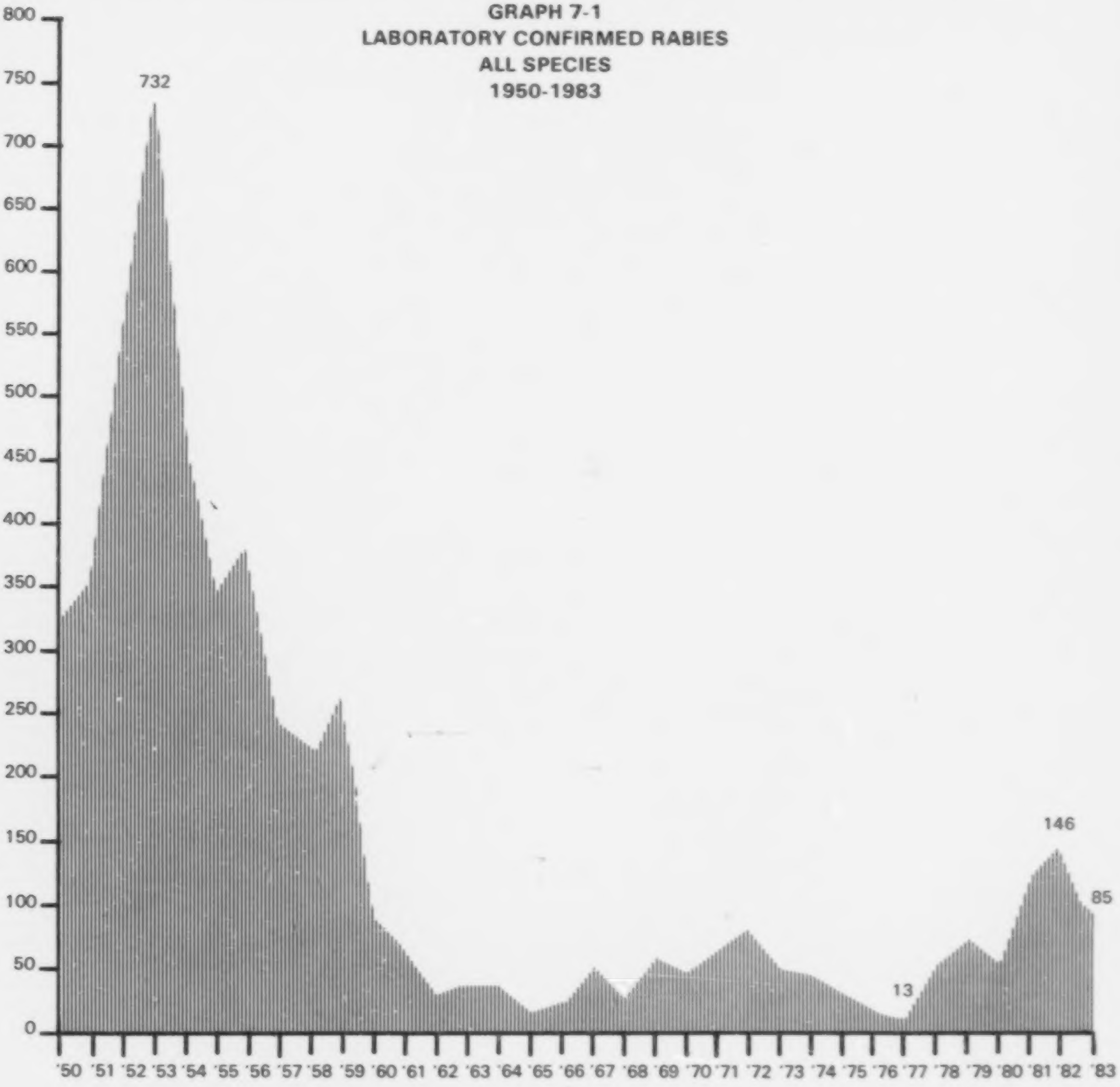
Epidemiology, Disease Registries, and Toxic Substances and Zoonotic Diseases are the divisions which comprise the Bureau of Epidemiology and Consultation. In addition to providing professional and technical assistance, the bureau serves as epidemiology liaison with local health departments and other agencies. These services are available continuously.

The requests for epidemiologic services continued to increase. Beginning in 1983 every incoming and outgoing call was tabulated and coded as to subject matter, resulting in 3,550 consultations (2,667 with the six public health areas and 883 with other state or federal agencies). Control measures for acute disease outbreaks accounted for 431 investigations. During the year 84 investigations and consultations were directed toward eliminating environmental and occupational hazards.

The bureau responded to 34 requests for training activities which 168 health department employees attended.

Rabies epidemiology and related subjects continue to head the list of requests. The bureau responded to 868 requests involving rabies and other zoonotic diseases and distributed 712 doses of Human Diploid Cell Rabies Vaccine

GRAPH 7-1
LABORATORY CONFIRMED RABIES
ALL SPECIES
1950-1983



(HDCV). Orders for HDCV as preexposure immunization for high risk groups continued to increase resulting in 97 doses being distributed for this purpose along with seven doses for booster effect for those previously immunized. In addition the Jefferson County Health Department distributed 153 doses of HDCV. The Alabama Department of Public Health has continued to distribute this vaccine and provide consultations to physicians, hospitals and laboratories on a daily basis.

With 75 cases or outbreaks, requests for assistance in the evaluation and control of central nervous system diseases, including meningitis and encephalitis, ranked second in total number. Coordination with the Clinical Laboratory Administration in the submission of specimens as well as providing control measures, including the prophylaxis of contacts, proved to be of substantial benefit.

Requests for assistance in evaluation of hepatitis cases comprised the next largest category of involvement. During the year a total of 728 cases of hepatitis was reported to the bureau (hepatitis A—179; hepatitis B—424; Non A, Non B—76; and unspecified—49) and hundreds of contacts received immune globulin prophylaxis through the local health departments. Outbreaks occurred in jails, prisons, schools and day care centers. Control of hepatitis B in certain settings and in selected groups has been greatly improved with the availability of the hepatitis B vaccine, Heptavac™ (Merck, Sharp, and Dohme). This vaccine is commercially available and is used throughout the state.

Assistance in controlling foodborne and waterborne illnesses was the fourth largest category. During the year the 29 foodborne outbreaks reported to the bureau resulted in 154 additional follow-up investigations. These 29 outbreaks affected 418 individuals and occurred at churches, schools, community functions, homes, restaurants, nursing homes, day care centers, catered meals, and private parties. Six of these outbreaks were related to ingestion of raw oysters. During 1983 the occurrence in epidemic numbers of two unfamiliar

## TABLE 7-1
## SEASONAL OCCURRENCE OF DISEASES
## 1983

| Diseases | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amebiasis | | 1 | 1 | | 1 | 1 | | | | | | 1 |
| Brucellosis | | | | 1 | 2 | | | 1 | | | | 1 |
| Campylobacter | 9 | 6 | 10 | 6 | 5 | 5 | 13 | 9 | 13 | 13 | 10 | 10 |
| Diphtheria | | | | | | | | | | | | |
| Encephalitis | 5 | 2 | 3 | | | 3 | 4 | 4 | 1 | 1 | 1 | 1 |
| Giardiasis | 40 | 66 | 61 | 48 | 61 | 48 | 79 | 67 | 61 | 68 | 50 | 64 |
| Gonorrhea | 1,824 | 2,242 | 1,588 | 1,735 | 2,009 | 1,707 | 2,341 | 1,854 | 1,900 | 2,542 | 1,634 | 1,750 |
| Hepatitis, A | 8 | 17 | 29 | 21 | 20 | 13 | 10 | 27 | 10 | 9 | 4 | 15 |
| Hepatitis, B | 26 | 35 | 34 | 31 | 36 | 38 | 30 | 27 | 24 | 45 | 39 | 59 |
| Hepatitis, Unspec. | 1 | 3 | 15 | 9 | 1 | 2 | 1 | | | 9 | 6 | 2 |
| Hep., Non A, Non B | 3 | 8 | 5 | 8 | 5 | 4 | 8 | 6 | 6 | 7 | 8 | 8 |
| Histoplasmosis | 3 | 4 | 11 | 5 | 7 | 12 | 8 | 5 | 14 | 16 | 9 | 10 |
| Legionellosis | 1 | 1 | 1 | | | | | | 2 | | | |
| Leptospirosis | | | | | | | 2 | | | | | |
| Malaria | | 1 | | | | 2 | 2 | | 1 | 1 | | |
| Measles | | | | | 4 | 1 | | | | | | |
| Meningitis, Aseptic | 19 | 14 | 8 | 7 | 7 | 11 | 20 | 98 | 121 | 82 | 37 | 21 |
| Meningococcal Men. | 6 | 7 | 5 | 2 | 3 | 4 | 7 | 3 | 1 | 1 | 5 | 6 |
| Mumps | | | | | | 1 | 1 | | | | | |
| Pertussis | | | | | | 1 | 2 | | 2 | | | |
| Psittacosis | | | | | | | | | | | | |
| Poliomyelitis | | | | | | | | | | | | |
| Rabies in Animals | 3 | 4 | 6 | 6 | 7 | 6 | 5 | 13 | 16 | 13 | 4 | 2 |
| Reye Syndrome | | 1 | | 1 | | 1 | | | | | 1 | 1 |
| Rocky Mt. Spotted Fev. | 2 | | | | | 1 | 11 | 3 | 6 | 1 | | |
| Rubella | | | | | 1 | | | | | | | |
| Salmonellosis | 31 | 36 | 31 | 54 | 33 | 60 | 108 | 62 | 100 | 106 | 72 | 44 |
| Shigellosis | - | | 5 | 14 | 6 | 4 | 5 | 4 | 21 | 20 | 15 | 11 |
| Smallpox | | | | | | | | | | | | |
| Syphilis | 160 | 125 | 103 | 159 | 127 | 127 | 125 | 138 | 146 | 125 | 98 | 95 |
| Tetanus | | | 1 | | | 1 | 1 | | | | | |
| Tuberculosis | 40 | 37 | 61 | 29 | 49 | 43 | 56 | 41 | 41 | 49 | 29 | 48 |
| Tularemia | | | | | | | | | | | | |
| Typhoid Fever | | | | | | | 1 | | | 1 | | |
| Typhus, Murine | | | | | | | | | | | | |

## TABLE 7-2
## CASES OF COMMUNICABLE DISEASES
## 1973-1983

| Diseases | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Amebiasis | 2 | 4 | 1 | 4 | 1 | 5 | 2 | 7 | 4 | 4 | 5 |
| Brucellosis |  | 1 | 3 | 3 | 2 | 3 | 3 | 6 | 4 | 5 | 5 |
| Campylobacter |  |  |  |  |  |  |  | 24 | 61 | 56 | 109 |
| Diphtheria | 6 |  |  |  |  |  |  |  |  |  |  |
| Encephalitis | 19 | 9 | 78 | 87 | 12 | 16 | 28 | 12 | 23 | 18 | 25 |
| Giardiasis |  |  |  |  |  |  |  |  |  | 435 | 713 |
| Gonorrhea | 19,704 | 21,673 | 24,418 | 25,026 | 24,936 | 25,082 | 26,012 | 24,464 | 25,178 | 25,092 | 23,126 |
| Hepatitis, A | 478 | 323 | 304 | 218 | 212 | 224 | 267 | 237 | 155 | 128 | 183 |
| Hepatitis, B | 195 | 186 | 259 | 221 | 175 | 168 | 236 | 273 | 289 | 381 | 424 |
| Hepatitis, Unspec. |  | 42 | 43 | 35 | 74 | 57 | 120 | 138 | 78 | 57 | 49 |
| Hep., Non A, Non B |  |  |  |  |  |  |  |  | 32 | 63 | 76 |
| Histoplasmosis |  |  |  |  |  |  | 50 | 21 | 72 | 131 | 104 |
| Legionellosis |  |  |  |  | 13 | 13 | 10 | 10 | 7 | 9 | 5 |
| Leptospirosis |  |  | 4 | 2 | 5 | 1 | 2 | 1 | 1 | 2 | 2 |
| Malaria | 5 |  | 6 | 2 | 6 | 2 | 6 | 8 | 10 | 2 | 7 |
| Measles | 14 | 21 | 5 |  | 79 | 102 | 129 | 22 | 2 | 2 | 5 |
| Meningitis, Aseptic | 139 | 59 | 159 | 136 | 183 | 148 | 289 | 537 | 326 | 321 | 445 |
| Meningococcal Inf. | 19 | 13 | 32 | 40 | 61 | 52 | 41 | 58 | 68 | 56 | 50 |
| Mumps | 758 | 618 | 454 | 368 | 400 | 437 | 28 | 36 | 19 | 10 | 2 |
| Pertussis | 15 | 20 | 46 | 6 | 4 | 3 | 4 | 3 |  | 5 | 5 |
| Psittacosis |  |  |  |  | 1 |  | 2 | 2 |  | 1 |  |
| Poliomyelitis |  | 1 |  |  |  |  |  |  |  |  |  |
| Rabies in Animals | 52 | 48 | 34 | 18 | 13 | 53 | 73 | 56 | 123 | 146 | 85 |
| Reye syndrome |  | 3 | 3 | 3 | 2 | 5 | 7 | 10 | 14 | 10 | 5 |
| Rocky Mt. Spotted Fev. | 28 | 14 | 10 | 15 | 20 | 13 | 21 | 18 | 24 | 19 | 24 |
| Rubella | 210 | 66 | 23 | 2 | 110 | 25 | 44 | 3 | 1 |  | 1 |
| Salmonellosis | 404 | 328 | 329 | 382 | 425 | 486 | 474 | 534 | 603 | 543 | 737 |
| Shigellosis | 121 | 130 | 208 | 114 | 125 | 246 | 121 | 157 | 61 | 84 | 105 |
| Smallpox |  |  |  |  |  |  |  |  |  |  |  |
| Syphilis | 442 | 519 | 542 | 432 | 350 | 421 | 577 | 893 | 1,062 | 1,510 | 1,528 |
| Tetanus | 4 | 1 | 1 | 2 | 3 |  | 5 | 4 | 2 | 6 | 3 |
| Tuberculosis | 790 | 785 | 780 | 824 | 704 | 672 | 644 | 665 | 640 | 631 | 523 |
| Tularemia |  | 2 |  |  | 1 | 1 |  | 2 |  |  |  |
| Typhoid Fever | 14 | 4 | 3 | 1 | 1 | 3 | 8 | 4 | 5 | 10 | 2 |
| Typhus, Murine |  |  |  |  |  | 1 |  |  |  | 1 |  |

serotypes of Salmonella, *S. agona* and *S. djugu,* were thoroughly investigated at the request of the Centers for Disease Control.

Enteric related illnesses continued to show a yearly increase. In 1983 reported to the bureau were the following: Salmonella—737, Campylobacter—109, Shigella—105, and Typhoid—2. The occurrence and spread of these diseases in day care centers and nursing homes continued to present unusual and difficult problems.

Also showing an alarming increasing rate of occurrence in 1983 was a parasitic-related illness, giardiasis. There were 713 cases reported to the bureau during the year, several of these occurring in outbreaks in day care centers.

Histoplasmosis cases were again a major concern and remained an endemic problem in Alabama. Reported to the bureau this year were 104 confirmed cases. Soil examinations in several populated areas of the state proved to be infected with the *Histoplasma capsulatum* organism. Procedures for identification of contaminated roost areas, protocol for decontaminating these areas and consultation on patient evaluation were provided upon request.

Providing consultation on hospital infection control problems remains high on the list of commitments for the Bureau of Epidemiology and Consultation. The bureau has actively sought over the past few years to establish a working relationship with hospital infection control nurses and with the Alabama Chapter of the Association of Practitioners of Infection Control to make it easier to give assistance in controlling the spread of infection within institutions. The aim for this type liaison is to establish a system of hospital-based reporting of many diseases and thus enhance perception of what diseases are prevalent throughout the state.

The State Committee of Public Health continued to demonstrate interest in those diseases that are classified as notifiable. In 1983 this committee approved the addition of two new diseases, AIDS (Acquired Immune Deficiency Syndrome) and Kawasaki's disease to be reported

*Terry Collier in Environmental Health sets up equipment for timed persistent harassment at bird roosts. Concern about histoplasmosis is the reason for running birds away from populated areas.*

beginning in fiscal year 1984. Reports of notifiable diseases to this bureau for fiscal year 1983 totaled 29,823, a substantial increase over last year.

During 1983 the bureau assumed sole responsibility for the *Communicable Disease Report.* This publication provides information on diseases which are currently threatening Alabama citizens and provides short articles on prevalent diseases and disease trends. This monthly report is distributed to health care providers and other interested individuals. In addition the Division of Disease Registries circulates a quarterly cumulative report on the prevalence of communicable diseases in each county of the state.

Protocols for investigating specific diseases and for initiating control measures are being developed on a continuing basis. These enable the county health departments to proceed with routine disease control matters in a more expeditious manner, and they provide uniform disease control measures throughout the state. In June of 1983, the State Committee of Public Health approved *Revised Guidelines for the Chemoprophylaxis of Contacts to Meningococcal Meningitis.*

The Bureau of Epidemiology and Consultation must coordinate its activities with all other units of the State Health Department as well as other state, local, and federal agencies. The bureau continues to have an active working relationship with the Clinical Laboratory Administration, the Environmental Health Administration, the Bureau of Licensure and Certification, and area, district, and local health departments. The Clinical Laboratory Administration supports program goals with diagnostic services and consultations. In cases of environmental contamination, the Environmental Health Administration is responsible for the technical and engineering aspects while this bureau provides information on physiological, toxicological and epidemiological effects. The cooperation of area, district and local health departments make it possible to achieve program goals.

# TABLE 7-3
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1983

| | | Amebiasis | | | Brucellosis | | | Campylobacter | | | Encephalitis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 4 | 1 | 5 | 4 | | 5 | 59 | 5 | 109 | 18 | 7 | 25 |
| PHA 1 | Colbert | | | | | | | 2 | | 2 | | | |
| | Cullman | | | | | | | | | | | | |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | | | | 2 | | 2 | | 1 | 1 |
| | Lauderdale | | | | 1 | | 1 | | | 1 | 1 | | 1 |
| | Lawrence | | | | | | | | | | | | |
| | Limestone | | | | | | | | | | | | |
| | Madison | | | | | | | 7 | | 16 | | | |
| | Marion | | | | | | | | | | | | |
| | Marshall | | | | | | | | | | | | |
| | Morgan | 2 | | 2 | | | | | | | | | |
| | Winston | | | | | | | | | | | | |
| PHA 2 | Bibb | | | | | | | | | | 1 | | 1 |
| | Fayette | | | | | | | 1 | | 1 | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | 1 | | 1 | 1 | 1 | 2 | | | |
| | Tuscaloosa | 1 | | 1 | 1 | | 1 | | | | 1 | | 1 |
| PHA 3 | Blount | | | | | | | 1 | | 1 | 1 | | 1 |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | | | | | | | | | 20 | 2 | 3 | 5 |
| | St. Clair | | | | | | | 1 | | 1 | | | |
| | Shelby | | | | | | | | | | | | |
| | Walker | | | | | | | 6 | | 6 | 1 | | 1 |
| PHA 4 | Calhoun | | | | | | | 1 | | 1 | 1 | | 1 |
| | Chambers | | | | | | | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | | | | | | 1 | | | 1 | 2 | | 2 |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | | | | | | |
| | Tallapoosa | | | | | | | | | | | | |
| PHA 5 | Autauga | | | | | | | | | | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | | |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | 1 | | 1 | | | | 1 | | 1 |
| | Elmore | | | | | | | | | 1 | 3 | | 3 |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | |
| | Houston | | | | | | | 4 | | 4 | | | |
| | Lee | | 1 | 1 | | | | 2 | | 2 | | | |
| | Lowndes | | | | | | | | | | | | |
| | Pike | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | 1 | | 6 | 1 | 2 | 3 |
| | Russell | | | | | | | 1 | | 2 | | | |
| PHA 6 | Baldwin | 1 | | 1 | | | | 3 | | 5 | 1 | | 1 |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | 1 | 1 |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | | | | | | | 26 | 4 | 35 | 2 | | 2 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev 11-81

# TABLE 7-4
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1983

| | | Giardiasis | | | Gonorrhea | | | Hepatitis A | | | Hepatitis B | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 13 | 2 | 713 | | | 23,126 | 174 | 8 | 183 | 291 | 126 | 424 |
| PHA 1 | Colbert | | | 1 | | | 198 | 1 | | 1 | 9 | 3 | 12 |
| | Cullman | | | 16 | | | 31 | 4 | | 5 | 2 | | 2 |
| | Franklin | 1 | | 1 | | | 55 | | | | 3 | | 3 |
| | Jackson | | | 7 | | | | | | | 3 | | 3 |
| | Lauderdale | | | | | | 187 | 3 | | 3 | 9 | 3 | 13 |
| | Lawrence | | | 18 | | | 41 | 20 | | 20 | 4 | | 4 |
| | Limestone | | | 10 | | | 45 | | | | 1 | | 1 |
| | Madison | 2 | | 15 | | | 1,482 | 1 | | 1 | 12 | 3 | 15 |
| | Marion | | | 2 | | | 18 | | | | | | |
| | Marshall | | | | | | 14 | 17 | | 17 | 9 | | 9 |
| | Morgan | 1 | | 30 | | | 209 | 36 | | 36 | 8 | 2 | 10 |
| | Winston | | | | | | 14 | 1 | | 1 | 6 | | 6 |
| PHA 2 | Bibb | | | | | | 18 | | | | | | |
| | Fayette | | | | | | 12 | | | | 1 | | 1 |
| | Greene | | | | | | 79 | | | | | | |
| | Hale | | | 1 | | | 63 | | | | | | |
| | Lamar | | | | | | 4 | | | | | | |
| | Pickens | | 1 | 4 | | | 56 | 2 | | 2 | 1 | 1 | 2 |
| | Tuscaloosa | | | 20 | | | 1,342 | 3 | | 3 | 3 | 2 | 6 |
| PHA 3 | Blount | | | 2 | | | 21 | | | | 1 | | 1 |
| | Chilton | | | | | | 60 | | | | | | |
| | Jefferson | | | 24 | | | 6,576 | 24 | 3 | 27 | 78 | 46 | 124 |
| | St. Clair | 2 | | 4 | | | 41 | | | | | | |
| | Shelby | | | | | | 56 | 1 | | 1 | 3 | | 3 |
| | Walker | | | 2 | | | 85 | 4 | | 4 | 16 | 1 | 17 |
| PHA 4 | Calhoun | | | 4 | | | 736 | 1 | | 1 | 1 | 1 | 2 |
| | Chambers | | | | | | 94 | | | | | | |
| | Cherokee | | | 2 | | | 1 | | | | 3 | | 3 |
| | Clay | | | | | | 42 | | | | | 1 | 1 |
| | Cleburne | | | | | | 4 | | | | | | |
| | Coosa | | | | | | 71 | | | | | | |
| | DeKalb | | | 5 | | | 32 | 2 | | 2 | | | |
| | Etowah | | | | | | 164 | 4 | | 4 | 2 | 2 | 5 |
| | Randolph | | | 1 | | | 18 | 1 | | 1 | | | |
| | Talladega | | | | | | 322 | | | | 2 | | 2 |
| | Tallapoosa | 1 | | 4 | | | 99 | 1 | | 1 | | | |
| PHA 5 | Autauga | 1 | | 1 | | | 53 | | | | | 1 | 1 |
| | Barbour | | | 4 | | | 82 | | | | | | |
| | Bullock | | | 1 | | | 99 | | | | | 5 | 5 |
| | Butler | | | 7 | | | 33 | | | | 1 | | 1 |
| | Coffee | | | 4 | | | 43 | | 1 | 1 | 2 | 1 | 3 |
| | Covington | | | 25 | | | 194 | | | | 1 | | 1 |
| | Crenshaw | | | 2 | | | 45 | 1 | | 1 | | | |
| | Dale | | | 7 | | | 172 | 1 | | 1 | 5 | | 5 |
| | Elmore | | 1 | 9 | | | 86 | 2 | | 2 | 1 | 3 | 4 |
| | Geneva | | | 8 | | | 19 | 1 | | 1 | 1 | | 1 |
| | Henry | | | 6 | | | 51 | 1 | | 1 | 1 | 2 | 3 |
| | Houston | 1 | | 30 | | | 499 | 17 | 2 | 19 | 3 | 2 | 5 |
| | Lee | | | 14 | | | 321 | | 1 | 1 | 1 | | 1 |
| | Lowndes | | | 6 | | | 148 | | | | | | |
| | Pike | | | 5 | | | 159 | | | | 1 | | 1 |
| | Macon | | | | | | 111 | | | | | | |
| | Montgomery | | | 66 | | | 3,148 | 12 | | 12 | 15 | 9 | 26 |
| | Russell | | | | | | 179 | | | | 2 | | 2 |
| PHA 6 | Baldwin | | | 79 | | | 125 | 3 | | 3 | 6 | 1 | 7 |
| | Choctaw | | | 5 | | | 11 | | | | | | |
| | Clarke | | | 4 | | | 52 | | | | 4 | 2 | 6 |
| | Conecuh | | | 1 | | | 69 | 1 | | 1 | | | |
| | Dallas | | | 25 | | | 769 | 1 | | 1 | | 2 | 2 |
| | Escambia | | | 19 | | | 89 | | 1 | 1 | | | |
| | Marengo | | | 1 | | | 27 | | | | 1 | 1 | 2 |
| | Mobile | 3 | | 179 | | | 4,050 | 7 | | 7 | 68 | 30 | 100 |
| | Monroe | 1 | | 14 | | | 24 | 1 | | 1 | | | |
| | Perry | | | 1 | | | 35 | | | | | | |
| | Sumter | | | | | | 25 | | | | | 1 | 1 |
| | Washington | | | 4 | | | 4 | | | | 1 | | 1 |
| | Wilcox | | | 13 | | | 114 | | | | | 1 | 1 |

Total includes reports not stating race

ADPH-F-EPI-15/Rev 11-81

# TABLE 7-5
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1983

| | | Hepatitis, Unspec. | | | Hepatitis, Non A, Non B | | | Histoplasmosis | | | Legionellosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 39 | 8 | 49 | 62 | 14 | 76 | 36 | 20 | 104 | 4 | | 5 |
| PHA 1 | Colbert | | | | | | | | | | | | 1 |
| | Cullman | | | | | | | | | | | | |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | 1 | | 1 | | | | | | |
| | Lauderdale | 1 | | 1 | 1 | | 1 | | | 2 | 1 | | 1 |
| | Lawrence | 1 | | 1 | 1 | | 1 | | | | | | |
| | Limestone | | | | | | | | | | | | |
| | Madison | 1 | 1 | 2 | | 1 | 1 | 1 | 1 | 9 | | | |
| | Marion | | | | | | | | | | | | |
| | Marshall | 2 | | 2 | 9 | | 9 | | | | | | |
| | Morgan | 5 | | 5 | 7 | | 7 | 1 | | 4 | | | |
| | Winston | 3 | | 3 | 4 | | 4 | | | | | | |
| PHA 2 | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | 1 | | 1 | | | | | | |
| | Hale | | | | | | | | | 1 | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | 1 | | 1 | 2 | 1 | 5 | | | |
| PHA 3 | Blount | 1 | | 1 | | | | | | | | | |
| | Chilton | 3 | | 3 | | | | | | | | | |
| | Jefferson | 13 | 3 | 16 | 21 | 5 | 26 | 10 | 2 | 23 | | | |
| | St. Clair | | | | 1 | | 1 | | | | | | |
| | Shelby | | | | 1 | | 1 | | | | | | |
| | Walker | 2 | | 2 | 2 | 1 | 3 | | | | | | |
| PHA 4 | Calhoun | 1 | | 1 | | | | | | | 1 | | 1 |
| | Chambers | | | | | 1 | 1 | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | 1 | 1 | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | 3 | | 3 | | 1 | 1 | 1 | | 1 | | | |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | 1 | | 1 | | | | | | |
| | Tallapoosa | | | | | | | 1 | | 1 | | | |
| PHA 5 | Autauga | | | | | | | 7 | 1 | 9 | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | 1 | 1 | | | | | | | | | |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | 1 | | 1 | | | | | | | | | |
| | Elmore | | | | | 1 | 1 | 1 | | 1 | | | |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | |
| | Houston | | | | | 2 | 2 | | 1 | 2 | | | |
| | Lee | | | | | 1 | 1 | | 1 | 2 | | | |
| | Lowndes | | | | | | | | | | | | |
| | Pike | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | 12 | 9 | 36 | | | |
| | Russell | | | | | | | | | | | | |
| PHA 6 | Baldwin | | | | 1 | | 1 | | | | | | |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | 1 | | 1 | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | 1 | 1 | 2 | 1 | | 1 | | | | | | |
| | Mobile | 1 | 1 | 4 | 8 | 1 | 9 | | 3 | 7 | 2 | | 2 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | 1 | 1 | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev 11-81

# TABLE 7-6
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1983

| | | Leptospirosis | | | Malaria | | | Measles | | | Meningitis, Aseptic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | Entire State | | | 2 | 2 | 4 | 7 | 5 | | 5 | 284 | 154 | 445 |
| PHA 1 | Colbert | | | | | 1 | 1 | | | | | | |
| | Cullman | | | | | | | | | | 6 | | 6 |
| | Franklin | | | | | | | | | | 1 | | 1 |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | | | | | | | 2 | | 3 |
| | Lawrence | | | | | | | | | | | 1 | 1 |
| | Limestone | | | | | | | | | | | | |
| | Madison | | | | | 1 | 2 | | | | 3 | | 3 |
| | Marion | | | | | | | | | | 5 | | 5 |
| | Marshall | | | | | | | | | | 4 | | 4 |
| | Morgan | | | | | | | | | | 2 | | 2 |
| | Winston | | | | | | | | | | 1 | | 1 |
| PHA 2 | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | 1 | | 1 | 1 | | | | 2 | | 2 |
| PHA 3 | Blount | | | | | | | | | | 3 | | 3 |
| | Chilton | | | | | | | | | | 4 | 1 | 5 |
| | Jefferson | | | 1 | | | | 4 | | 4 | 144 | 119 | 266 |
| | St. Clair | | | | | | | | | | 4 | 2 | 6 |
| | Shelby | | | | | | | | | | 17 | 1 | 18 |
| | Walker | | | | | | | | | | 26 | 3 | 30 |
| PHA 4 | Calhoun | | | | | | | | | | 1 | | 1 |
| | Chambers | | | | | | | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | 2 | | 2 |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | 1 | 1 |
| | DeKalb | | | | | | | | | | 2 | | 2 |
| | Etowah | | | | | | | | | | 3 | 1 | 4 |
| | Randolph | | | | | | | | | | 1 | | 1 |
| | Talladega | | | | | | | | | | 3 | 1 | 4 |
| | Tallapoosa | | | | | | | | | | 1 | | 1 |
| PHA 5 | Autauga | | | | | | | | | | 1 | | 1 |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | 1 | 1 | 2 |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | | |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | | | | | 1 | 1 | 2 |
| | Elmore | | | | | | | | | | 1 | | 1 |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | |
| | Houston | | | | 2 | | 2 | | | | 2 | 2 | 4 |
| | Lee | | | | | 1 | 1 | | | | | | |
| | Lowndes | | | | | | | | | | | | |
| | Pike | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | | | | 4 | 1 | 5 |
| | Russell | | | | | | | | | | | | |
| PHA 6 | Baldwin | | | | | | | | | | 3 | 1 | 4 |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | 1 | | 1 |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | 2 | 1 | 3 |
| | Mobile | | | | | | | 1 | | 1 | 31 | 16 | 49 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | 1 | 1 |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev 11-81

# TABLE 7-7
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1983

| | | Meningococcal Meningitis | | | Mumps | | | Pertussis | | | Rabies in Animals | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 43 | 6 | 50 | 1 | 1 | 2 | 3 | | 5 | | | 85 |
| PHA 1 | Colbert | | | | | | | | | | | | |
| | Cullman | 2 | | 2 | | | | | | | | | |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | | | | | | | | | 1 |
| | Lawrence | | | | | | | | | | | | 2 |
| | Limestone | 1 | | 1 | | | | | | | | | 4 |
| | Madison | 3 | | 3 | | | | | | | | | 4 |
| | Marion | | | | | | | | | | | | |
| | Marshall | | | | | | | | | | | | |
| | Morgan | | | | | | | | | | | | |
| | Winston | 1 | | 1 | | | | | | | | | |
| PHA 2 | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | | | | | | | | | 1 |
| PHA 3 | Blount | | | | | | | | | | | | |
| | Chilton | | | | | | | | | | | | 1 |
| | Jefferson | 7 | 1 | 9 | | | | | | | | | 3 |
| | St. Clair | | | | | | | | | | | | |
| | Shelby | 2 | | 2 | | | | | | | | | 6 |
| | Walker | 1 | | 1 | | | | | | | | | |
| PHA 4 | Calhoun | 3 | | 3 | | | | 2 | | 2 | | | 2 |
| | Chambers | | | | | | | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | 5 | | 5 | | | | | | | | | |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | 1 | | 1 | | | 1 |
| | Tallapoosa | 1 | | 1 | | | | | | | | | 3 |
| PHA 5 | Autauga | | | | | | | | | | | | |
| | Barbour | | | | | | | | | | | | 1 |
| | Bullock | | 1 | 1 | | | | | | | | | |
| | Butler | | | | | | | | | | | | 1 |
| | Coffee | 2 | | 2 | | | | | | | | | 6 |
| | Covington | 1 | 1 | 2 | | | | | | | | | 5 |
| | Crenshaw | 1 | | 1 | | | | | | | | | 4 |
| | Dale | 1 | | 1 | | 1 | 1 | | | | | | 5 |
| | Elmore | 1 | 1 | 2 | 1 | | 1 | | | | | | 1 |
| | Geneva | | | | | | | | | | | | 5 |
| | Henry | | | | | | | | | | | | 5 |
| | Houston | 3 | | 3 | | | | | | | | | 9 |
| | Lee | | | | | | | | | 1 | | | 1 |
| | Lowndes | | | | | | | | | 1 | | | |
| | Pike | | | | | | | | | | | | 2 |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | | | | | | 5 |
| | Russell | | | | | | | | | | | | |
| PHA 6 | Baldwin | | | | | | | | | | | | 3 |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | 1 | 1 | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | 1 |
| | Marengo | | | | | | | | | | | | |
| | Mobile | 7 | 1 | 8 | | | | | | | | | 2 |
| | Monroe | 1 | | 1 | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | 1 |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev. 11-81

# TABLE 7-8
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
# 1983

| | | Reye Syndrome | | | Rocky Mt. Spotted Fever | | | Rubella | | | Salmonellosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 3 | 2 | 5 | 22 | 1 | 24 | 1 | | 1 | 85 | 24 | 737 |
| PHA 1 | Colbert | | | | | | | | | | 2 | | 5 |
| | Cullman | | | | | | | | | | | | 2 |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | 2 | | 2 | | | | 10 | 2 | 25 |
| | Lawrence | | | | | | | | | | | | 2 |
| | Limestone | | | | 1 | | 1 | | | | 5 | | 8 |
| | Madison | | | | 2 | | 3 | 1 | | 1 | 1 | 2 | 32 |
| | Marion | | | | 1 | | 1 | | | | | | |
| | Marshall | | | | 2 | | 2 | | | | | | |
| | Morgan | | | | 1 | | 1 | | | | 7 | | 16 |
| | Winston | | | | | | | | | | | | |
| PHA 2 | Bibb | | | | | | | | | | | | |
| | Fayette | | | | 1 | | 1 | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | 1 |
| | Tuscaloosa | | | | | | | | | | 3 | | 29 |
| PHA 3 | Blount | | | | 1 | | 1 | | | | | | |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | | 1 | 1 | 3 | | 3 | | | | | | 202 |
| | St. Clair | | | | | | | | | | | | |
| | Shelby | | | | | | | | | | | | |
| | Walker | | | | 2 | | 2 | | | | 4 | | 5 |
| PHA 4 | Calhoun | | | | | | | | | | 1 | | 12 |
| | Chambers | | | | 1 | | 1 | | | | | | 3 |
| | Cherokee | | | | 2 | | 2 | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | 1 | 2 |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | 1 | | 1 | 1 | | 1 | | | | | | 26 |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | 1 | | 1 | | | | 1 | | 1 |
| | Tallapoosa | | | | | | | | | | | | |
| PHA 5 | Autauga | | | | | | | | | | | 1 | 3 |
| | Barbour | | | | | | | | | | | | 1 |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | 3 | 6 |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | 2 |
| | Dale | | | | | | | | | | 2 | | 4 |
| | Elmore | | | | | | | | | | 2 | | 7 |
| | Geneva | 1 | | 1 | | | | | | | | | |
| | Henry | | | | | | | | | | | | 1 |
| | Houston | | | | | | | | | | 18 | 1 | 70 |
| | Lee | | | | | 1 | 1 | | | | | | |
| | Lowndes | | | | | | | | | | | | |
| | Pike | | | | | | | | | | | | 2 |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | | | | 6 | 5 | 90 |
| | Russell | | | | | | | | | | 2 | | 9 |
| PHA 6 | Baldwin | | | | 1 | | 1 | | | | 1 | | 7 |
| | Choctaw | | | | | | | | | | | | 1 |
| | Clarke | | | | | | | | | | | | 1 |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | 3 |
| | Escambia | | | | | | | | | | 2 | | 2 |
| | Marengo | | | | | | | | | | 1 | | 1 |
| | Mobile | 1 | 1 | 2 | | | | | | | 17 | 8 | 154 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI 5/Rev 11-81

# TABLE 7-9
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1983

| | | Shigellosis | | | Syphilis | | | Tetanus | | | Tuberculosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 23 | 10 | 105 | | | 1,528 | 2 | 1 | 3 | 251 | 272 | 523 |
| PHA 1 | Colbert | | | | | | 7 | | | | 6 | 3 | 9 |
| | Cullman | | | | | | 3 | | | | 8 | | 8 |
| | Franklin | | | | | | 1 | | | | 3 | | 3 |
| | Jackson | | | | | | 2 | | | | 3 | | 3 |
| | Lauderdale | | | | | | 10 | | | | 11 | 1 | 12 |
| | Lawrence | | | | | | 3 | | | | 5 | 1 | 6 |
| | Limestone | | | | | | 16 | | | | 11 | 1 | 12 |
| | Madison | | | 2 | | | 42 | | | | 20 | 19 | 39 |
| | Marion | | | | | | | | | | 2 | | 2 |
| | Marshall | | | | | | 2 | | | | 11 | | 11 |
| | Morgan | 2 | | 2 | | | 13 | | | | 9 | | 9 |
| | Winston | | | | | | | | | | 3 | | 3 |
| PHA 2 | Bibb | | | | | | | 1 | | 1 | | | |
| | Fayette | 2 | | 2 | | | 1 | | | | | 2 | 2 |
| | Greene | | | | | | 5 | | | | 1 | 1 | 2 |
| | Hale | | | | | | 2 | | | | | 5 | 5 |
| | Lamar | | | | | | 3 | | | | 2 | | 2 |
| | Pickens | 1 | | 2 | | | 1 | | | | | 2 | 2 |
| | Tuscaloosa | | | 1 | | | 51 | | | | 14 | 24 | 38 |
| PHA 3 | Blount | | | | | | 4 | | | | 5 | | 5 |
| | Chilton | | | | | | 3 | | | | | | |
| | Jefferson | | | 17 | | | 376 | | | | 26 | 79 | 105 |
| | St. Clair | | | | | | 3 | | | | 2 | 1 | 3 |
| | Shelby | | | | | | 7 | | | | 5 | 2 | 7 |
| | Walker | | | | | | 2 | | | | 8 | 2 | 10 |
| PHA 4 | Calhoun | | | 1 | | | 42 | | | | 11 | 6 | 17 |
| | Chambers | | | | | | 8 | | | | 2 | | 2 |
| | Cherokee | | | | | | | | | | 4 | | 4 |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | 2 | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | 2 | | | | 3 | | 3 |
| | Etowah | | | 6 | | | 26 | | | | 17 | 8 | 25 |
| | Randolph | | | | | | | | | | | 1 | 1 |
| | Talladega | | | | | | 13 | | 1 | 1 | 2 | 6 | 8 |
| | Tallapoosa | | | | | | 6 | | | | 2 | 1 | 3 |
| PHA 5 | Autauga | | | | | | 4 | | | | | 1 | 1 |
| | Barbour | | | 5 | | | 12 | | | | | | |
| | Bullock | | | | | | 3 | | | | | | |
| | Butler | | | | | | 6 | | | | | 3 | 3 |
| | Coffee | | | | | | 1 | | | | 2 | | 2 |
| | Covington | | | | | | 1 | | | | 4 | | 4 |
| | Crenshaw | | | | | | 8 | | | | | | |
| | Dale | | | | | | 13 | | | | | | |
| | Elmore | | | 13 | | | 8 | 1 | | 1 | 3 | 3 | 6 |
| | Geneva | | | | | | 4 | | | | | | |
| | Henry | | | | | | 7 | | | | | | |
| | Houston | | 1 | 3 | | | 58 | | | | 3 | 3 | 6 |
| | Lee | | | | | | 11 | | | | 4 | 7 | 11 |
| | Lowndes | | | | | | 12 | | | | | | |
| | Pike | | | | | | 9 | | | | 1 | 1 | 2 |
| | Macon | | | | | | 21 | | | | | 4 | 4 |
| | Montgomery | | | 4 | | | 268 | | | | 4 | 24 | 28 |
| | Russell | | | | | | 15 | | | | 1 | 2 | 3 |
| PHA 6 | Baldwin | | | | | | 18 | | | | 6 | 1 | 7 |
| | Choctaw | | | | | | | | | | 1 | | 1 |
| | Clarke | | | | | | 1 | | | | 2 | 2 | 4 |
| | Conecuh | | | | | | 1 | | | | | 2 | 2 |
| | Dallas | | | 1 | | | 49 | | | | 2 | 9 | 11 |
| | Escambia | | | | | | 16 | | | | 2 | 3 | 5 |
| | Marengo | | | | | | 2 | | | | | 2 | 2 |
| | Mobile | 18 | 9 | 46 | | | 291 | | | | 15 | 33 | 48 |
| | Monroe | | | | | | 9 | | | | 1 | 3 | 4 |
| | Perry | | | | | | 6 | | | | 2 | 1 | 3 |
| | Sumter | | | | | | 12 | | | | 1 | 2 | 3 |
| | Washington | | | | | | 4 | | | | | 1 | 1 |
| | Wilcox | | | | | | 2 | | | | 1 | | 1 |

Total includes reports not stating race

ADPH-F-EPI-15/Rev. 11-81

# TABLE 7-10
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
# 1983

| | | Typhoid Fever | | | Typhus, Murine | | | Diphtheria | | | Poliomyelitis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 1 | 1 | 2 | | | 0 | | | 0 | | | 0 |
| PHA 1 | Colbert | | | | | | | | | | | | |
| | Cullman | | | | | | | | | | | | |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | | | | | | | | | |
| | Lawrence | | | | | | | | | | | | |
| | Limestone | | | | | | | | | | | | |
| | Madison | | | | | | | | | | | | |
| | Marion | | | | | | | | | | | | |
| | Marshall | | | | | | | | | | | | |
| | Morgan | | | | | | | | | | | | |
| | Winston | | | | | | | | | | | | |
| PHA 2 | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | | | | | | | | | |
| PHA 3 | Blount | | | | | | | | | | | | |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | | | | | | | | | | | | |
| | St. Clair | | | | | | | | | | | | |
| | Shelby | | | | | | | | | | | | |
| | Walker | | | | | | | | | | | | |
| PHA 4 | Calhoun | | | | | | | | | | | | |
| | Chambers | | | | | | | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | | | | | | | | | | | | |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | | | | | | |
| | Tallapoosa | | | | | | | | | | | | |
| PHA 5 | Autauga | | | | | | | | | | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | | |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | | | | | | | |
| | Elmore | | | | | | | | | | | | |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | |
| | Houston | | | | | | | | | | | | |
| | Lee | | | | | | | | | | | | |
| | Lowndes | | | | | | | | | | | | |
| | Pike | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | | | | | | |
| | Russell | | | | | | | | | | | | |
| PHA 6 | Baldwin | | | | | | | | | | | | |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | 1 | 1 | 2 | | | | | | | | | |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev. 11-81

# TABLE 7-11
# DISEASE INCIDENCE BY AGE GROUPS
# 1983

| AGE GROUP | Amebiasis | | | | | Brucellosis | | | | | Campylobacter | | | | | Encephalitis | | | | | Giardiasis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | | | | | | 5 | 7 | | 2 | 14 | 3 | | 1 | 1 | 5 | | 2 | 1 | | 3 |
| 5- 9 | 1 | | | | 1 | | | | | | 3 | 1 | | | 4 | 1 | | | | 1 | | 1 | | | 1 |
| 10-14 | | | | | | | | | | | 4 | 1 | | | 5 | 2 | 1 | | 2 | 5 | 1 | 1 | | | 2 |
| 15-19 | | | | | | | | | | | 1 | | 1 | 1 | 3 | 1 | 2 | | | 3 | 1 | | | | 1 |
| 20-24 | | | | | | 1 | | | | 1 | 6 | 5 | | | 11 | | 1 | | 2 | 3 | | | | | |
| 25-34 | | | 1 | | 1 | 1 | | | | 1 | 1 | 9 | 1 | | 11 | 2 | 1 | | | 3 | 1 | 1 | | | 2 |
| 35-44 | 1 | | | | 1 | 1 | | | | 1 | 1 | 3 | | | 4 | | | | | | 2 | 1 | | | 3 |
| 45-54 | | | | | | 1 | | | | 1 | 2 | 1 | | | 3 | | 1 | | | 1 | | | | | |
| 55-64 | | | | | | | | | | | 2 | 3 | | | 5 | 2 | | | | 2 | | 1 | | | 1 |
| 65-74 | 1 | | | | 1 | | | | | | 1 | 3 | | | 4 | | | 1 | | 1 | | | | | |
| 75+ | 1 | | | | 1 | | | | | | | | | | | 1 | | | | 1 | | | | 1 | 1 |
| N.S. | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| TOTAL BY RACE | 4 | | 1 | | | 4 | | | | | 59 | | 5 | | | 18 | | 7 | | | 13 | | 2 | | |
| TOTAL | 5 | | | | | 4 | | | | | 64 | | | | | 25 | | | | | 15 | | | | |
| UNCLASSI-FIED | | | | | | 1 | | | | | 45 | | | | | | | | | | 698 | | | | |
| GRAND TOTAL | 5 | | | | | 5 | | | | | 109 | | | | | 25 | | | | | 713 | | | | |

ADPH-F-EPI-16/Rev. 11-81

## TABLE 7-12
## DISEASE INCIDENCE BY AGE GROUPS
## 1983

| AGE GROUP | Hepatitis A | | | | | Hepatitis B | | | | | Hepatitis, Unspec | | | | | Hepatitis, Non A, Non B | | | | | Leptospirosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | 4 | 10 | 1 | | 15 | 2 | | 2 | | 4 | | 1 | | | 1 | | 2 | | | 2 | | | | | |
| 5- 9 | 8 | 8 | 2 | | 18 | | 1 | | | 1 | | | | | | 1 | 2 | | | 3 | | | | | |
| 10-14 | 8 | 13 | | | 21 | | | | 1 | 1 | 1 | | 1 | | 2 | 1 | 2 | | | 3 | | | | | |
| 15-19 | 9 | 9 | 1 | | 19 | 10 | 13 | 8 | 7 | 38 | | 3 | | | 3 | 3 | | | | 3 | | | | | |
| 20-24 | 18 | 11 | | 1 | 30 | 44 | 24 | 22 | 11 | 101 | 6 | 1 | 1 | 1 | 9 | 4 | 6 | 1 | 1 | 12 | | | | | |
| 25-34 | 25 | 20 | 1 | | 46 | 65 | 39 | 22 | 20 | 146 | 6 | 2 | | | 8 | 3 | 8 | 2 | 4 | 17 | | | | | |
| 35-44 | 9 | 6 | | | 15 | 23 | 9 | 6 | | 38 | 4 | | | | 4 | 3 | 1 | | 3 | 7 | | | | | |
| 45-54 | 1 | 1 | | 1 | 3 | 9 | 11 | 5 | 6 | 31 | 3 | 3 | | 3 | 9 | 3 | 2 | | | 5 | | | | | |
| 55-64 | 2 | 1 | | | 3 | 12 | 8 | 2 | 4 | 26 | 4 | 2 | 1 | | 7 | | 4 | | 2 | 6 | | | | | |
| 65-74 | | 2 | | | 2 | 7 | 3 | 3 | 2 | 15 | | 2 | 1 | | 3 | 6 | 6 | | 1 | 13 | | | | | |
| 75+ | | 4 | | 1 | 5 | 3 | 5 | 2 | 2 | 12 | 1 | | | | 1 | 1 | 3 | | | 4 | | | | | |
| N.S. | 2 | 3 | | | 5 | 2 | 1 | 1 | | 4 | | | | | | 1 | | | | 1 | | | | | |
| TOTAL BY RACE | 174 | | 8 | | | 291 | | 126 | | | 39 | | 8 | | | 62 | | 14 | | | | | | | |
| TOTAL | 182 | | | | | 417 | | | | | 47 | | | | | 76 | | | | | | | | | |
| UNCLASSIFIED | 1 | | | | | 7 | | | | | 2 | | | | | | | | | | 2 | | | | |
| GRAND TOTAL | 183 | | | | | 424 | | | | | 49 | | | | | 76 | | | | | 2 | | | | |

ADPH-F-EPI-16/Rev. 11-81

# TABLE 7-13
# DISEASE INCIDENCE BY AGE GROUPS
## 1983

| AGE GROUP | Histoplamosis | | | | | Legionellosis | | | | | Measles | | | | | Mumps | | | | | Pertussis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| Under 1 | | | | | | | | | | | | | | | | | | | | | 2 | 1 | | | 3 |
| 1 | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | |
| 2 | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 1 | | | 1 | 2 | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15-19 | 4 | 3 | | 2 | 9 | | | | | | 1 | 1 | | | 2 | | | | | | | | | | |
| 20-24 | 1 | 1 | 2 | | 4 | | | | | | | 1 | | | 1 | | | 1 | | 1 | | | | | |
| 25-34 | 2 | 4 | 2 | 3 | 11 | 1 | 1 | | | 2 | | 1 | | | 1 | | | | | | | | | | |
| 35-44 | 6 | 2 | 1 | 2 | 11 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 45-54 | 1 | 2 | | | 3 | 1 | | | | 1 | | | | | | | | | | | | | | | |
| 55-64 | | 3 | 1 | 1 | 5 | 1 | | | | 1 | | | | | | | | | | | | | | | |
| 65-74 | 3 | 1 | | 2 | 6 | | | | | | | | | | | | | | | | | | | | |
| 75+ | | | | | | | | | | | | | | | | | | | | | | | | | |
| N.S. | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 36 | | 20 | | | 4 | | | | | 5 | | | | | 1 | | 1 | | | 3 | | | | |
| TOTAL | 56 | | | | | 4 | | | | | 5 | | | | | 2 | | | | | 3 | | | | |
| UNCLASSIFIED | 48 | | | | | 1 | | | | | | | | | | | | | | | 2 | | | | |
| GRAND TOTAL | 104 | | | | | 5 | | | | | 5 | | | | | 2 | | | | | 5 | | | | |

# TABLE 7-14
# DISEASE INCIDENCE BY AGE GROUPS
# 1983

| AGE GROUP | Malaria | | | | | Meningitis, Aseptic | | | | | Meningococcal, Men. | | | | | Reye Syndrome | | | | | Rocky Mt. Spotted Fev. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | 55 | 38 | 35 | 28 | 156 | 14 | 17 | 1 | 1 | 33 | | 2 | | 2 | 4 | | 2 | | | 2 |
| 5- 9 | | | | | | 14 | 18 | 15 | 5 | 52 | 1 | | | 1 | 2 | | | | | | 4 | 2 | | | 6 |
| 10-14 | | | | | | 13 | 8 | 13 | 3 | 37 | 1 | 1 | | 1 | 3 | | 1 | | | 1 | 2 | 2 | | | 4 |
| 15-19 | | | 1 | | 1 | 8 | 11 | 6 | 8 | 33 | 1 | 2 | 2 | | 5 | | | | | | 1 | | | | 1 |
| 20-24 | | | | | | 15 | 12 | 3 | 11 | 41 | 2 | | | | 2 | | | | | | 1 | 1 | 1 | | 3 |
| 25-34 | | 1 | | | 1 | 30 | 38 | 6 | 9 | 83 | | | | | | | | | | | 1 | 2 | | | 3 |
| 35-44 | | | 1 | | 1 | 5 | 7 | | 3 | 15 | | 1 | | | 1 | | | | | | 1 | 1 | | | 2 |
| 45-54 | | | | | | 2 | 2 | 1 | 4 | 9 | | | | | | | | | | | 1 | | | | 1 |
| 55-64 | | | | | | 3 | 1 | 3 | 1 | 8 | | 1 | | | 1 | | | | | | 1 | | | | 1 |
| 65-74 | | | | | | | 1 | | | 1 | | 1 | | | 1 | | | | | | | | | | |
| 75+ | | | | | | 1 | 1 | | | 2 | | 1 | | | 1 | | | | | | | | | | |
| N.S. | 1 | | 2 | | 3 | | 1 | | | 1 | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 2 | | 4 | | | 284 | | 154 | | | 43 | | 6 | | | 3 | | 2 | | | 22 | | 1 | | |
| TOTAL | 6 | | | | | 438 | | | | | 49 | | | | | 5 | | | | | 23 | | | | |
| UNCLASSIFIED | 1 | | | | | 7 | | | | | 1 | | | | | | | | | | 1 | | | | |
| GRAND TOTAL | 7 | | | | | 445 | | | | | 50 | | | | | 5 | | | | | 24 | | | | |

ADPH-F-EPI-16/Rev. 11-81

## TABLE 7.15
## DISEASE INCIDENCE BY AGE GROUPS
## 1983

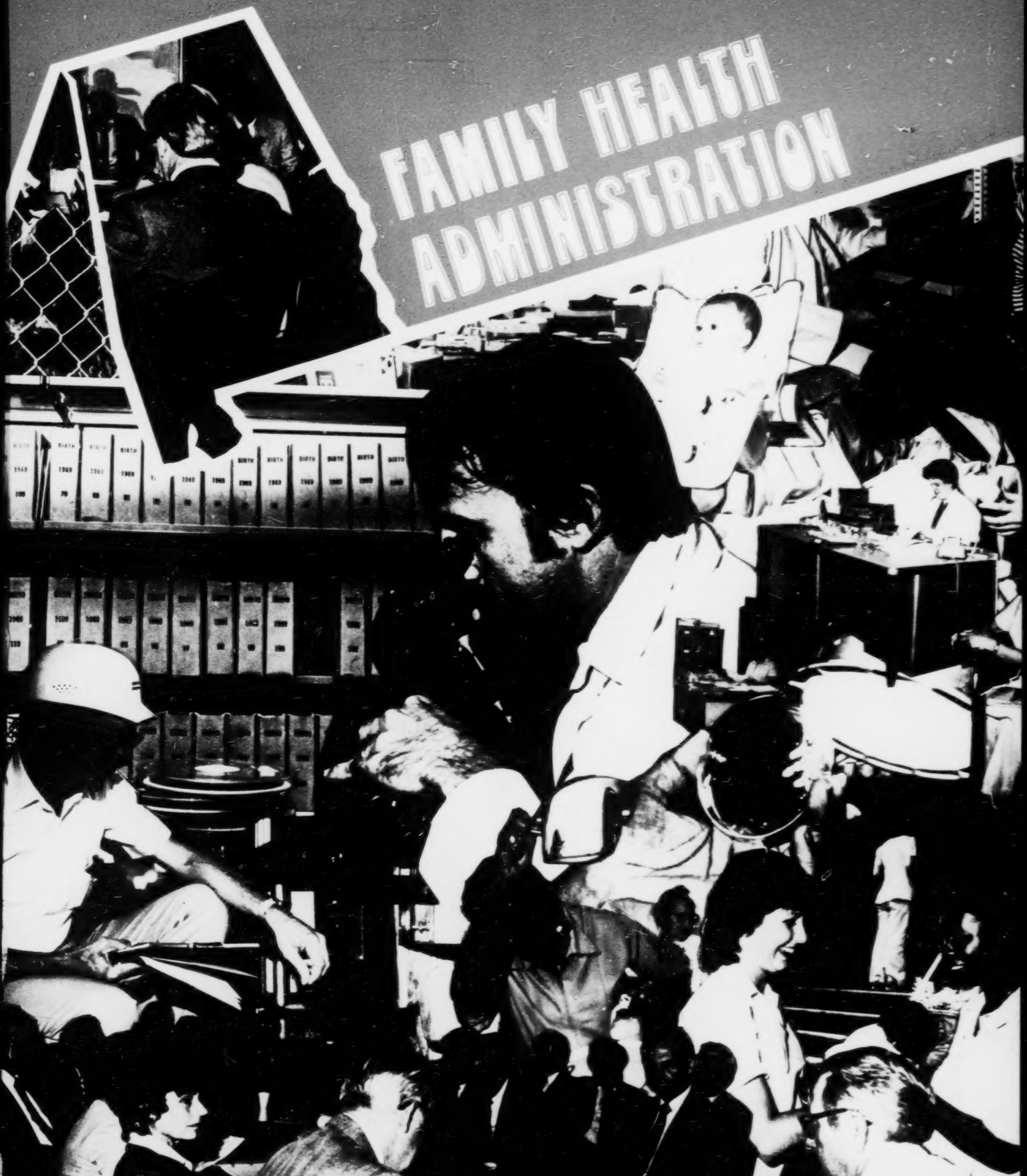
| AGE GROUP | Rubella | | | | | Salmonellosis | | | | | Shigellosis | | | | | Tetanus | | | | | Tuberculosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | 21 | 12 | 6 | 11 | 50 | 3 | 5 | 2 | 6 | 16 | | | | | | | 1 | 1 | | 2 |
| 5- 9 | | | | | | 3 | 3 | | | 6 | 1 | 2 | | | 3 | | | | | | | | | | |
| 10-14 | | | | | | 4 | | | 1 | 5 | | 1 | | | 1 | | | | | | | 1 | 1 | 3 | 5 |
| 15-19 | | | | | | 2 | | 1 | | 3 | | | | | | | | | | | | 1 | 1 | 1 | 3 |
| 20-24 | | | | | | 3 | | 1 | | 4 | | 4 | | 1 | 5 | | | | | | 1 | 1 | 5 | 6 | 13 |
| 25-34 | | | | | | 6 | 7 | 2 | 1 | 16 | | 2 | 1 | | 3 | | | | | | 9 | 5 | 34 | 18 | 66 |
| 35-44 | 1 | | | | 1 | 3 | 6 | | | 9 | | 3 | | | 3 | | | | | | 15 | 5 | 26 | 6 | 52 |
| 45-54 | | | | | | 2 | 1 | | | 3 | | | | | | 1 | | | | 1 | 42 | 5 | 36 | 7 | 80 |
| 55-64 | | | | | | 1 | | | | 1 | | | | | | | | | | | 29 | 9 | 38 | 11 | 87 |
| 65-74 | | | | | | 1 | 1 | 1 | | 3 | | 1 | | | 1 | | 1 | | 1 | 2 | 36 | 21 | 38 | 10 | 105 |
| 75+ | | | | | | 2 | 4 | | | 6 | | 1 | | | 1 | | | | | | 42 | 28 | 34 | 16 | 120 |
| N.S. | | | | | | 2 | 1 | | | 3 | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 1 | | | | | 85 | | 24 | | | 23 | | 10 | | | 2 | | 1 | | | 251 | | 272 | | |
| TOTAL | 1 | | | | | 109 | | | | | 33 | | | | | 3 | | | | | 523 | | | | |
| UNCLASSIFIED | | | | | | 628 | | | | | 72 | | | | | | | | | | | | | | |
| GRAND TOTAL | 1 | | | | | 737 | | | | | 105 | | | | | 3 | | | | | 523 | | | | |

[illegible]

# TABLE 7-16
# DISEASE INCIDENCE BY AGE GROUPS
# 1983

| AGE GROUP | Typhoid Fever | | | | | Typhus, Murine | | | | | Diphtheria | | | | | Poliomyelitis | | | | | Psittacosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total | White | | Nonwhite | | Total |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5- 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10-14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15-19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20-24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25-34 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| 35-44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45-54 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | |
| 55-64 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65-74 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75+ | | | | | | | | | | | | | | | | | | | | | | | | | |
| N.S. | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| UNCLASSI-FIED | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRAND TOTAL | 2 | | | | | 0 | | | | | 0 | | | | | 0 | | | | | 0 | | | | |

# FAMILY HEALTH ADMINISTRATION



# FAMILY HEALTH ADMINISTRATION

During 1983 the Family Health Administration continued to provide programmatic and administrative support for local programs of services for maternity; well child; sudden infant death syndrome (SIDS); early and periodic screening, diagnosis and treatment (EPDST); family planning; cancer detection; nutrition; and supplemental foods for women, infants and children (WIC). The Family Health Administration allocates resources, develops policies and procedures for its programs, and monitors expenditures of local program activities. Standards of care have been set, and program performance and quality of services are continually evaluated. In addition the administration provides staff development, training and technical assistance for staff in Family Health Administration programs statewide.

Providing preventive health care services which improve the health of women and children in Alabama continued to be the major emphasis of the Family Health Administration. The goal of the Family Health Administration is the reduction of maternal mortality, infant mortality and handicapping conditions in children.

During 1983 the Family Health Administration was reorganized into four bureaus aligned into areas of expertise rather than programmatic divisions in order to avoid duplication and increase administrative efficiency and productivity. Progress reports on the activities of each bureau follow an overview of progress in major programs.

**Cancer Detection**—The primary objective of this program is to screen Alabama's female population 35 years and older for cancers of the uterine cervix, endometrium and breast. Patients with abnormal Pap test results or suspicious breast lumps are referred to private physicians for appropriate diagnostic evaluation, treatment and follow-up. Since the cure rate of these cancers found in early stages is very high, screening for abnormalities is vital.

During fiscal year 1983 this program performed 17,595 pelvic examinations and found 145 patients with a Class III, IV or V Pap tests. All resulted in proper referral. Table 8-1 gives the number of patients served in the public health areas.

### TABLE 8-1
### CANCER DETECTION
### FISCAL YEAR 1983

| Areas | Patients Served* |
|---|---|
| PHA I | 2,566 |
| PHA II | 1,096 |
| PHA III | 1,750 |
| PHA IV | 3,766 |
| PHA V | 5,968 |
| PHA VI | 2,808 |
| STATE | 17,945 |

*Estimated based on six months of activity.

**Family Planning**—The Statewide Family Planning Program continued its preventive and screening services during fiscal year 1983 with its patients receiving many primary health services in program clinics in each county in the state.

The total health of the individual is a concern of a comprehensive family planning program. Improved health results from spacing of pregnancies, early detection of heatlh problems and prevention of unwanted pregnancies. During 1983 local programs provided services to 83,141 individuals in 203,769 clinic visits. A breakdown by public health area is given in Table 8-2.

### TABLE 8-2
### FAMILY PLANNING
### FISCAL YEAR 1983

| Areas | Total Patients Served | Teenagers Served |
|---|---|---|
| PHA I | 11,871 | 3,922 |
| PHA II | 5,416 | 1,593 |
| PHA III | 21,071 | 6,292 |
| PHA IV | 9,195 | 3,783 |
| PHA V | 18,383 | 6,042 |
| PHA VI | 17,205 | 5,779 |
| STATE | 83,141 | 27,411 |

The diagnostic services of the program enhance primary care of patients. In 1983 the following services were provided: 71,320 Pap smears, 69,871 breast exams for cancer with instructions in self breast examination, 197,745 blood pressure determinations, 37,044 syphilis tests, 75,072 gonorrhea cultures, 59,628 hemoglobin or hematocrits, 66,060 urine tests for sugar and acetone, 11,698 sickle cell tests and 82,755 bimanual pelvic examinations. There were 13,479 referrals to private physicians for suspected medical problems. Also referrals to social agencies, infertility counseling and follow-up services were provided.

Every effort was made to increase efficiency and reduce program costs. In 1983 the Alabama Statewide Family Planning Program had the lowest cost per patient served in Region IV of the Department of Health and Human Services.

Teenage pregnancy continues to be one of the leading health problems in Alabama although the teenage birth rate has been declining since the late 1970s. In a teenage pregnancy the risks to the mother and the infant are numerous. Some of these risks include higher maternal mortality, higher infant mortality, premature and low birth weight babies, psychological problems, interruption of education for one or both parents.

It is estimated that nationally for every dollar spent on family planning services, two is saved on first year health and welfare costs and three is saved in the case of teens. In Alabama studies have been made that indicate that at least

25 percent more savings than the national average is realized in first year health and welfare costs.

Providing for family planning services has been shown to have a definite effect on the health of mothers and children. The need for family planning services in Alabama has increased and will probably continue to increase; therefore the statewide program is continually seeking new sources of funding to provide women in Alabama with adequate family planning services.

*Quality health care in the formative years improves the quality of life for all ages.*

**Maternal and Child Health**—The purpose of the Maternal and Child Health Program is to assure that mothers and children have access to quality health care so that infant mortality, preventable diseases and handicapping conditions among children are reduced. Services are targeted to the medically indigent population in Alabama, and they focus on providing preventive services for children and prenatal and postpartum care for women.

Goals and objectives of local programs were reviewed, evaluated and reset to conform with the mission of the Family Health Administration. During 1983 the Maternal and Child Health Program continued to expand when it was determined that quality services were needed by low income women and children. Special emphasis was placed on preventive health care for children up to 4 years of age and on prenatal services for women.

Because of the rising unemployment in Alabama, there was an increase in the demand for subsidized maternal and child health services from families who were without jobs or health insurance and with little or no income. The Maternal and Child Health Program received an additional $1.4 million in federal Jobs Bill funds which has been used to continue services, support delivery payment for high risk women and provide support for family planning. Statewide the number of maternity patients increased 5.3 percent over 1982. All but one public health area served more patients than in the previous year. Table 8-3 gives the number of patients in each area. Despite the increase in the demand for services and a reduction in the Maternal and Child Health Block Grant, more than 90 percent of the objectives stated in the 1983 Maternal and Child Health Plan were reached or exceeded.

### TABLE 8-3
### MATERNITY
### FISCAL YEAR 1983

| Areas | Patients Served |
|---|---|
| PHA I | 1,444 |
| PHA II | 1,123 |
| PHA III | 6,707 |
| PHA IV | 1,827 |
| PHA V | 3,484 |
| PHA VI | 4,347 |
| STATE | 18,932 |

In fiscal year 1983 the Maternal and Child Health Program provided health care for 18,932 pregnant women in 56 county health departments across the state; these were about 32 percent of all women in Alabama who had babies during 1983. They made a total of 105,362 prenatal visits to local public health clinics. Of these women, 31 percent were seen during the first trimester, and 10 percent were seen in the third trimester.

Well child services were provided to 50,915 children. Of this number, 18,078 were infants, and 17,174 were from 1 to 4 years of age. The number served in each PHA is given in Table 8-4. These patients made a total of 108,519 visits to clinics in county health departments.

### TABLE 8-4
### WELL CHILD
### FISCAL YEAR 1983

| Areas | Patients Served |
|---|---|
| PHA I | 2,729 |
| PHA II | 1,642 |
| PHA III | 32,227 |
| PHA IV | 2,649 |
| PHA V | 5,151 |
| PHA VI | 6,516 |
| STATE | 50,915 |

**Perinatal Program**—Like other FHA programs this activity proposes to reduce maternal and infant mortality and handicapping conditions. The state Legislature appropriated $712,536 for the Perinatal Program to use throughout the state. Eighteen perinatal projects were coordinated through the State Advisory Committee. These projects provided follow-up evaluation and health services for mothers and infants if their conditions indicated potential health problems. The projects also provided quarterly professional training for staffs of all hospitals which provide perinatal services.

There were 3,886 infants who received health evaluations and 4,673 mothers and infants who benefited from inpatient or outpatient hospital care. These two categories exceeded the proposed objectives by 12 percent and 28 percent respectively. Also 132 percent of the goal of 25,450 individuals receiving professional training in hospitals was met.

**WIC Program**—The Special Supplemental Food Program for Women, Infants and Children (WIC Program) is administered by the Family Health Administration and funded by the United States Department of Agriculture. Decentralization of the program required several months but was completed by the end of fiscal year 1983.

All county health departments except two conduct WIC Programs. Lowndes County citizens are served by the Lowndes County Health Services Incorporated, and Madison County residents are served by the Ambulatory Care Center of the University of Alabama at Huntsville. The WIC Program in Alabama provided supplemental food to 128,332 individuals during the year. An average of 9,529 women, 18,349 infants and 28,066 children were served each month. Each individual received an average of $26.50 worth of food a month. Those who qualified under priorities I, II and III were certified for the program from October to March. With increased funding from the Jobs Bill Act, those who met the criteria of any of the six priorities were served after this time. Total participation grew from 51,529 in March to 67,194 in September. No limitations were placed on local agencies as to the number of individuals who could be served.

Participants must meet income criteria and must need dietary supplements to prevent health problems. Potential participants are evaluated by physicians, nutritionists or nurses to determine if they meet the criteria of nutritional risk. These criteria include risk of iron deficiency anemia, inappropriate growth or weight gain, factors complicating pregnancy, history of complications during a previous pregnancy, nutrition related medical conditions and inappropriate dietary patterns. If applicants meet the nutrition criteria and fall within income guidelines, they are certified to participate in the program.

The WIC Program makes available foods which are high in the nutrients needed by pregnant and nursing women, infants and children. Eligible participants receive such foods as fortified infant formula, iron fortified cereal, juices high in ascorbic acid, milk, eggs, cheese and peanut butter. These foods help provide the nutrition essential during early development and growth.

In the local program areas, nutritionists and nurses provide the mandated nutrition education component of the WIC Program. These staff members discuss the nutritional needs of the participants and the supplemental foods as a means of meeting these needs. They provide information on the best use of the foods and explain the importance of health care. Nutrition education encounters for fiscal year 1983 number approximately 179,000. These represent both individual and group encounters. Referrals are also made for health care to public health clinics or other agencies in the community as the needs of the participants dictate.

The state and area nutrition plan of WIC emphasized the assessment of needs in the local programs and the development of strategies to meet the identified needs. A video conference on breastfeeding was held so that all areas could have the opportunity to hear top authorities explaining the importance of this infant feeding practice.

The program has contracts with over 800 grocery stores and has developed a vendor fraud detection unit in order to detect and determine the extent of fraud, waste and abuse. Compliance buys are being made, and violators are being sanctioned.

TABLE 8-5
WIC
FISCAL YEAR 1983

| Areas | Patients Served |
|---|---|
| PHA I | 17,548 |
| PHA II | 8,484 |
| PHA III | 28,043 |
| PHA IV | 14,864 |
| PHA V | 31,733 |
| PHA VI | 27,660 |
| STATE | 128,332 |

## BUREAU OF MANAGEMENT/ INFORMATION SYSTEMS

The primary functions of this bureau are to maintain and monitor the patient reporting systems of the Family Health Administration and to provide for the data needs of the different programs within the administration.

During 1983 emphasis was placed on systems integration and on evaluating current systems for adaptability to future needs. The bureau worked closely with the Bureau of Health Data Systems in reducing data input and in processing the various Family Health Administration reporting systems.

Other activities during 1983 included: providing training for county health department personnel regarding Family Health Administration patient reporting systems, developing data publications of administration programs, revising the cancer detection reporting system, providing clinic and area programs with technical assistance regarding management information systems, interfacing the statewide well child reporting system with Mobile County's child health data system, updating the patient reporting system instruction manuals, and conducting a feasibility study on automating EPSDT billing to Medicaid and on the WIC data system in an attempt to upgrade its output products to allow for better program management. Determining the means to improve efficiency of the WIC system and interfacing with the Centers for Disease Control Nutrition Surveillance Network have been started.

## BUREAU OF PLANNING AND DEVELOPMENT

The Bureau of Planning and Development is setting goals and objectives which will be compatible with the mission of Family Health Administration. The bureau is responsible for developing and establishing effective outreach of all programs in Family Health Administration, assisting in the development of the State Family Health Administration plan, submitting reports, drafting required grant applications, coordinating legal assistance, and coordinating Family Health Administration activities with agencies outside the Health Department. The bureau began developing a slide/tape presentation on the mission of the Family Health Administration and the services and the goals of the various programs within the administration. The responsibility for staff support and liaison with the Alabama Advisory Council on Maternal and Child Health rests within the Bureau of Planning and Development. During 1983 the council was expanded to include the addition of a WIC subcommittee.

*Planning is essential for effective programs.*

## BUREAU OF RESOURCE MANAGEMENT

The goal of the Bureau of Resource Management is to provide the Family Health Administration director with financial data on a systematic basis to be utilized for more efficient program management.

During fiscal year 1983 financial management systems were expanded to include all Family Health Administration programs. After an analysis of duties and responsibilities within the bureau, plans were made for hiring an accountant clerk instead of filling a clerk typist position. This person is responsible to the bureau director for coordinating, monitoring and evaluating expenditures by programs within the Family Health Administration.

The food delivery section of the Bureau of Resource Management developed systems for the implementation of new federal WIC regulations. Those regulations were designed to guard against vendor and participant program abuse. The systems developed included the revision of all vendor agreements and policies defining vendor and participant disqualifications. Policies and procedures for monitoring high risk vendors were also developed.

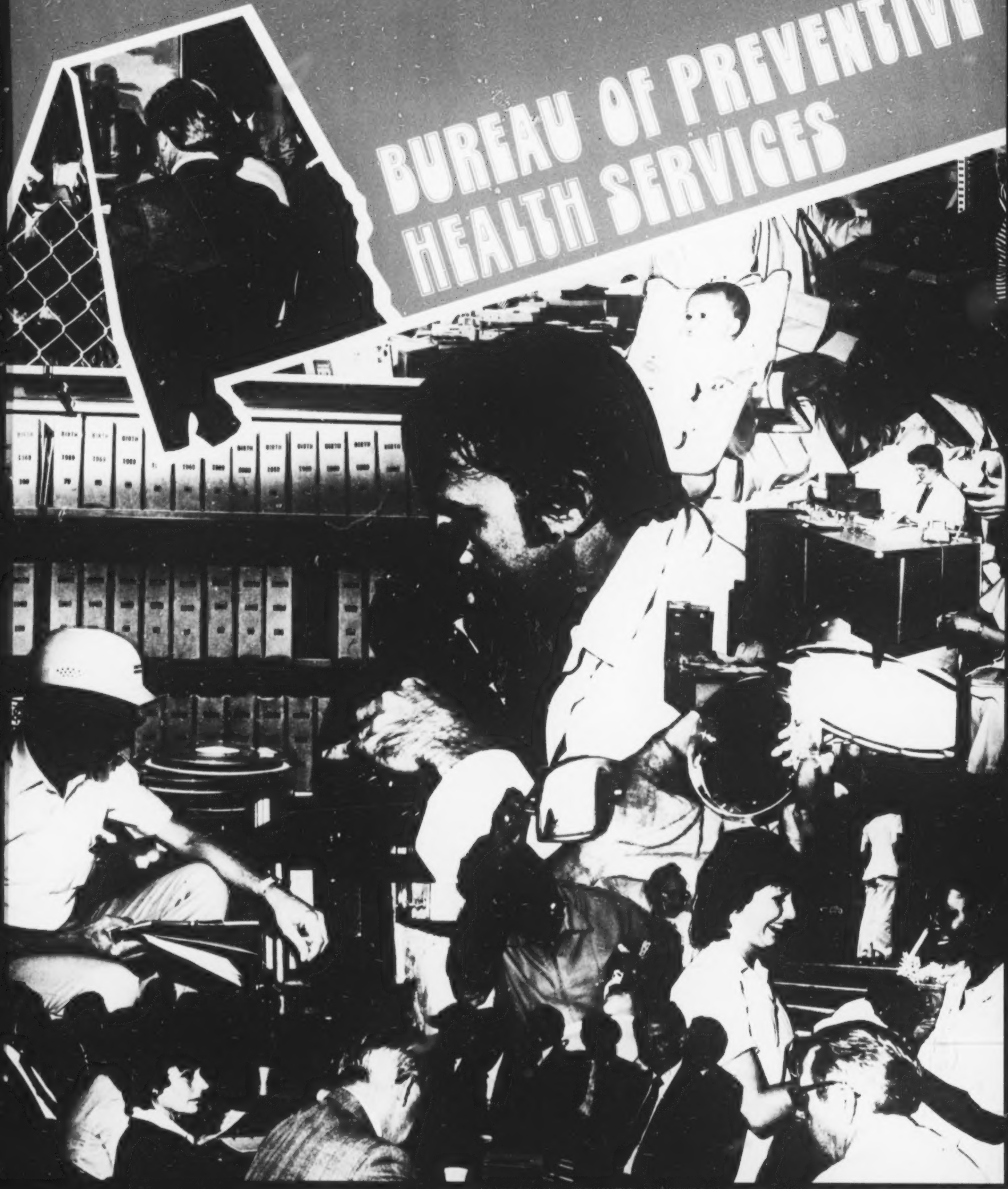
## BUREAU OF QUALITY ASSURANCE

The Bureau of Quality Assurance is responsible for determining the quality of care provided in all Family Health Administration programs statewide and for verifying that each county program is providing services which are in compliance with federal and state regulations, guidelines and standards of care.

On-site evaluations are made by a quality assurance team, which is usually composed of an administrator, a nurse and a nutritionist. The bureau is also responsible for developing protocols, coordinating nutrition services and providing training.

After the Bureau of Quality Assurance was formed, on-site evaluations were made in six counties in the October-December quarter. Four maternity, six family planning, three well child, six WIC and three cancer detection programs were evaluated. Prior to October 1, 1983, on-site evaluations on each program were performed individually. During fiscal year 1983 on-site evaluations were made on five child health, seven family planning and 44 WIC programs.

# BUREAU OF PREVENTIVE HEALTH SERVICES



# BUREAU OF PREVENTIVE HEALTH SERVICES

## Division of Hypertension

In the fall of 1982 a shift of program emphasis began to take place for the Division of Hypertension. With two successive years of budget decreases and task force recommendations, it became necessary to halt the growth of medical intervention in favor of more emphasis on uniform support services.

As a result of these changes, medication patient service units declined while most screening and referral activity increased. Unduplicated screenees increased from 13,350 to 13,848, and nonpatient blood pressure rechecks escalated from 13,725 to 15,233. Referrals increased from 1,383 in fiscal year 1982 to 1,661 in 1983.

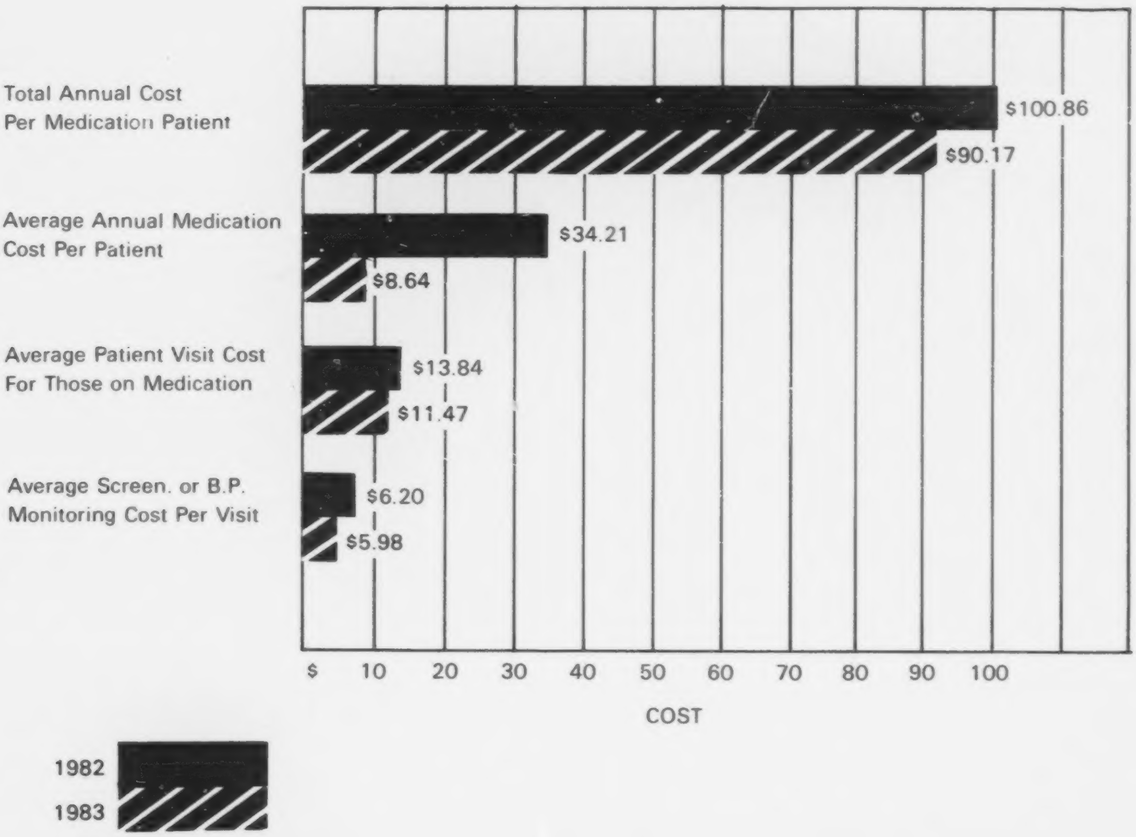
Medication-type visits declined from 18,288 to 17,320 or 5 percent. Full care visits fell from 4,994 to 4,336 or 13 percent, and joint care visits decreased from 13,294 to 12,984 for 2 percent.

Despite the reduction in visits, the percentage of encounters where patients had their blood pressure under control increased. In fiscal year 1982 controlled visits numbered 13,292 out of 18,288 for a 72.7 percentage. In fiscal year 1983 the program had a 74.0 percent controlled visit rate—12,813 out of 17,320.

Accompanying the decline in medication patient services, the program became more efficient. The average cost per year per medication patient was cut 10.6 percent from $100.86 to $90.17. The average patient visit cost for those on medication dropped from $13.84 to $11.47. The greatest unit cost plunge and the category largely responsible for the other decreases was the average cost to supply patients with medication for the year. This cost plummeted from $34.21 to $8.64 or 75 percent. Graph 9-1 illustrates these savings. Even at $34.21 per year the program was much more efficient in providing this service than any other program reported in the literature.

Also the unit cost for nonmedication patients was less in fiscal year 1983. The cost for screening and blood pressure monitoring visits was lowered from $6.20 to $5.98, and for

GRAPH 9-1
HYPERTENSION SERVICE COSTS
FISCAL YEARS 1982-1983



total blood pressure contact visits the cost was reduced from $8.94 to $8.18.

At the end of fiscal year 1983 the program medication patient count had dwindled to 2,204. Blacks accounted for 65.9 percent of patients and females 69.4 percent. White males accounted for only 11.3 percent of patients and black males 46.7 percent.

While white hypertensives in Alabama outnumber black hypertensives more than two to one, the incidence among blacks is considerably higher, with black women having the highest rate of 39.8 percent and white women having the lowest with 20.0 percent.

Hypertension and its ramifications take a large toll in the nation and in Alabama not only in terms of suffering but in terms of payments to those afflicted. It has been estimated that the national annual cost is in excess of 7.9 billion dollars. The annual Alabama cost is estimated in excess of 134 million dollars or 1.68 percent of the national cost. The largest expenditure comes from Social Security Disability, Medicare and Supplemental Security Income.

One way to help decrease the suffering and the cost, other than direct medical intervention by the Hypertension Program, is to shift emphasis toward education, coordination and support. Cooperation is not a new concept to the program, but it took on a higher priority at the beginning of fiscal year 1983 and is expected to increase in future years.

Promotion of better blood pressure control, education and awareness were accomplished through linkages with private and public sectors in professional education, public education and support services. A key example of this cooperation in professional education is an annual statewide hypertension conference in which several agencies participate. The Alabama Hypertension Program again in 1983 played a key, yet cooperative, role in Hypertension Conference '83 held in Birmingham. The conference theme was "New Ways to Take Control," with the main focus being on mild high blood pressure and dietary management. Among those receiving continuing education credits were 35 physicians, 37 nurses and 60 others including pharmacists, dieticians and health educators. More than a dozen came from surrounding states.

Another collaborative undertaking was a hypertension nursing in-service program planned by the Bureau of Public Health Nursing. This program was scheduled in 15 locations and was attended by 295 public health nurses.

Requests for information came from several student nurses working on community hypertension education projects and from other health professionals in Alabama and out of state.

Public educational activities reach their peak each year during High Blood Pressure Month in May. Again in 1983 the program mailed High Blood Pressure Month Kits to the county health departments and other interested agencies. These kits have many suggestions for promoting hypertension education along with practical materials such as news releases, artwork and reproducible pamphlets. Other activities of the year which reach a peak in May include sending out news releases, making television appearances and filling speaking engagements.

The Hypertension Program is the largest distributor of hypertension pamphlets in the state. Last year more than 32,000 pamphlets were requested with demand outstripping supply. Also during 1983 a pamphlet, "Salt, Weight and Hypertension," was developed.

A support service for both professional and public education was to encourage health education coordinators in county and city school systems to teach hypertension health education. The material mailed included information on resources.

A support service to county health departments was to conduct a survey of the availability of pediatric and obese cuffs. Through a cooperative arrangement with the Family Health Administration, additional cuffs were made available.

In the Hypertension Program a definite switch in emphasis from medical intervention to educational and support services is taking place. The control of high blood pressure is a pluralistic and multi-factorial process. It involves both public and private participants and resources to maximize impact. Public health educational and support services are key elements.

## Division of Immunization

Objectives and methods of operation for the Division of Immunization were thoroughly reevaluated during 1983. Twenty-four objectives and a definition of the public health representatives' role in their accomplishment were approved by a subcommittee of the State Committee of Public Health in May. The program administrators held work sessions with the assistant state health officers and Public Health Area immunization coordinators to prioritize goals and activities according to area needs.

In 1983 three program activities were initiated to meet the most urgent needs statewide. A massive outbreak of measles on the campus of Indiana University coupled with four cases associated with students attending Auburn University revealed a need for improved immunization levels among the college population. The Division of Immunization began a visitation and assessment program for all state two and four year colleges. Program representatives found that of the 48 institutions visited only 19 had preadmission immunization requirements. Immunization staff can now develop mechanisms to ensure high protective levels among the college population while providing college administrators with pertinent information about the importance of requiring preadmission vaccine histories.

Another program begun in 1983 was designed to enhance prompt reporting of vaccine preventable diseases.

The program epidemiology consultant called upon hospital infection control and emergency room supervisors as well as some private laboratories, providing them with posters, charts and other scientific information. Introductory and follow-up contacts are continuing into 1984.

The third new program of 1983 was the development of a method to identify immunization patients within the new unified medical record (UMR) system and to follow them through completion of the recommended immunization series. A sticker, indicating by special color and number codes the year and the quarter of the year when subsequent immunizations are due, will be placed on the tab of the UMR folder for every active immunization patient. Area and local immunization staff may then easily identify delinquent children and direct them into county health department immunization clinics.

Although Alabama's morbidity from childhood diseases remained relatively low, the two-year record of no indigenous measles was not maintained in 1983. (Indigenous measles is a case which occurred within the state but could not be related to an imported case or for which onset occurred more than two generations after an imported case to which it was epidemiologically linked.) The four university associated cases were traced to a source out of the country. A fifth case, reported in a two-year-old South Alabama resident, could not be traced to an out-of-state source, making it the first case of indigenous measles reported in Alabama since 1980. Other confirmed vaccine preventable diseases included one case of rubella and five cases of pertussis for the year.

*Each age group should be appropriately immunized to be adequately protected.*

*Keeping records of program activities is necessary, as Bovine Gross finds out.*

Three surveys are conducted annually by the Division of Immunization to monitor the protective levels among children in various age/activity groups. The 1983 school entrance survey shows that for four consecutive years more than 98 percent of the children entering school were adequately immunized and had a "Certificate of Immunization" on file. Table 9-1 gives the results of the survey by county and public health area. Most children who were apparently not in compliance had either medical or religious reasons for not being fully immunized. Furthermore random assessments of records for older school children indicated that immunization levels through grade twelve approach 98 percent statewide. Because schools historically have been implicated as the most frequent setting for outbreaks, the high level of immunity in kindergarten through the twelfth grade is considered the single most important factor in the virtual absence of disease in Alabama. Table 9-2 records public health vaccine usage to achieve this status.

As indicated in Table 9-3 most children enrolled in licensed child care facilities were appropriately immunized for their age groups. Because center operators who are unfamiliar with immunization recommendations have some difficulty assessing their enrollees' immunization status, the Division of Immunization, in cooperation with the Department of Pensions and Security, developed and field-tested a preschool immunization record. Once this record is adopted by day care centers statewide in 1984, center operators can easily see when boosters are needed and alert parents.

## TABLE 9-1
## SCHOOL ENTRANCE IMMUNIZATION SURVEY
## 1982 AND 1983

| | 1983 | | | 1982 |
|---|---|---|---|---|
| **Public Health Areas** | **Enrollment** | **Number with IMM-50*** | **Percent with IMM-50*** | **Percent with IMM-50*** |
| **PHA I** | | | | |
| Colbert | 1,727 | 1,676 | 97.05 | 96.61 |
| Cullman | 1,879 | 1,811 | 96.38 | 98.76 |
| Franklin | 786 | 785 | 99.87 | 98.47 |
| Jackson | 1,840 | 1,809 | 98.32 | 99.08 |
| Lauderdale | 2,078 | 2,038 | 98.08 | 97.77 |
| Lawrence | 1,096 | 1,081 | 98.63 | 98.83 |
| Limestone | 1,465 | 1,410 | 96.25 | 99.20 |
| Madison | 6,514 | 6,394 | 98.16 | 96.91 |
| Marion | 810 | 801 | 98.89 | 99.12 |
| Marshall | 2,235 | 2,202 | 98.52 | 98.02 |
| Morgan | 1,128 | 1,122 | 99.47 | 97.96 |
| Winston | 760 | 747 | 98.29 | 99.55 |
| Total | 22,318 | 21,876 | 98.02 | 97.95 |
| **PHA II** | | | | |
| Bibb | 542 | 542 | 100.00 | 98.62 |
| Fayette | 552 | 549 | 99.46 | 99.05 |
| Greene | 540 | 535 | 99.07 | 98.67 |
| Hale | 613 | 603 | 98.37 | 99.67 |
| Lamar | 592 | 577 | 97.47 | 98.94 |
| Pickens | 800 | 792 | 99.00 | 99.36 |
| Tuscaloosa | 4,386 | 4,330 | 98.72 | 99.20 |
| Total | 8,025 | 7,928 | 98.79 | 99.14 |
| **PHA III** | | | | |
| Blount | 982 | 969 | 98.69 | 100.00 |
| Chilton | 996 | 993 | 99.70 | 100.00 |
| Jefferson | 20,498 | 19,970 | 97.42 | 95.50 |
| St. Clair | 1,460 | 1,418 | 97.12 | 98.85 |
| Shelby | 2,076 | 2,003 | 96.48 | 99.49 |
| Walker | 2,170 | 2,139 | 98.57 | 98.76 |
| Total | 28,182 | 27,492 | 97.55 | 96.43 |
| **PHA IV** | | | | |
| Calhoun | 3,055 | 3,024 | 98.99 | 97.99 |
| Chambers | 1,568 | 1,556 | 99.23 | 98.23 |
| Cherokee | 625 | 612 | 97.92 | 98.16 |
| Clay | 473 | 467 | 98.73 | 99.29 |
| Cleburne | 360 | 353 | 98.06 | 98.76 |
| Coosa | 285 | 284 | 99.65 | 97.60 |
| DeKalb | 1,500 | 1,455 | 97.00 | 98.13 |
| Etowah | 2,762 | 2,735 | 99.02 | 99.50 |
| Randolph | 829 | 821 | 99.03 | 98.88 |
| Talladega | 2,156 | 2,129 | 98.75 | 98.78 |
| Tallapoosa | 1,019 | 1,011 | 99.21 | 99.69 |
| Total | 14,632 | 14,447 | 98.74 | 98.64 |

## TABLE 9-1 (continued)
## SCHOOL ENTRANCE IMMUNIZATION SURVEY
## 1982 AND 1983

| | 1983 | | | 1982 |
|---|---|---|---|---|
| Public Health Areas | Enrollment | Number with IMM-50* | Percent with IMM-50* | Percent with IMM-50* |
| **PHA V** | | | | |
| Autauga | 1,147 | 1,134 | 98.87 | 99.15 |
| Barbour | 442 | 441 | 99.77 | 99.34 |
| Bullock | 256 | 254 | 99.20 | 100.00 |
| Butler | 812 | 805 | 99.14 | 99.28 |
| Coffee | 1,387 | 1,370 | 98.77 | 99.28 |
| Covington | 1,226 | 1,216 | 99.18 | 98.00 |
| Crenshaw | 462 | 453 | 98.05 | 99.79 |
| Dale | 1,701 | 1,660 | 97.59 | 98.05 |
| Elmore | 1,540 | 1,527 | 99.16 | 98.10 |
| Geneva | 731 | 726 | 99.32 | 98.97 |
| Henry | 622 | 617 | 99.20 | 98.90 |
| Houston | 2,957 | 2,919 | 98.71 | 99.71 |
| Lee | 2,465 | 2,451 | 99.43 | 97.16 |
| Lowndes | 453 | 445 | 98.23 | 100.00 |
| Macon | 1,114 | 1,093 | 98.11 | 97.49 |
| Montgomery | 8,631 | 8,440 | 97.79 | 98.41 |
| Pike | 950 | 945 | 99.47 | 99.46 |
| Russell | 1,702 | 1,678 | 98.59 | 99.02 |
| Total | 28,598 | 28,174 | 98.51 | 98.64 |
| **PHA VI** | | | | |
| Baldwin | 2,639 | 2,604 | 98.67 | 98.73 |
| Choctaw | 604 | 601 | 99.50 | 98.64 |
| Clarke | 1,107 | 1,088 | 98.28 | 98.66 |
| Conecuh | 576 | 568 | 98.61 | 99.42 |
| Dallas | 1,353 | 1,321 | 97.63 | 96.46 |
| Escambia | 1,509 | 1,461 | 96.82 | 95.98 |
| Marengo | 986 | 979 | 99.29 | 98.23 |
| Mobile | 15,212 | 14,992 | 98.55 | 98.62 |
| Monroe | 933 | 923 | 98.93 | 98.38 |
| Perry | 536 | 535 | 99.81 | 98.76 |
| Sumter | 367 | 361 | 98.37 | 97.78 |
| Washington | 632 | 623 | 98.58 | 99.52 |
| Wilcox | 719 | 711 | 98.89 | 99.19 |
| Total | 27,173 | 26,767 | 98.51 | 98.34 |
| STATE TOTAL | 128,928 | 126,684 | 98.25 | 98.01 |

*IMM-50—Certificate of Immunization (at least 3 DTP injections, 3 polio doses, 1 measles, 1 rubella and 1 mumps).

For the second year in a row, results of the survey of two-year-old children's immunization levels reached 80 percent. Although these levels are above average nationwide, the Division of Immunization as well as the assistant state health officers continues to be concerned that they are not higher. Improving these levels continues to be the greatest challenge for the future. Such 1983 activities as the UMR tickler system, the preschool immunization record and the hospital based education program are targeted at this age group.

During 1983 the hospital based immunization education program continued to be the most effective means of communicating with mothers of infants. In addition to statewide distribution of educational materials to postpartum patients in over 100 hospitals, the program this year included a sophisticated evaluation of the statewide

## TABLE 9-2
## VACCINE USAGE
## 1973-1983

| Year | Diphtheria | Tetanus | Pertussis | Polio | Measles | Rubella | Mumps |
|---|---|---|---|---|---|---|---|
| 1973 | 168,519 | 184,163 | 138,804 | 147,626 | 46,068 | 47,948 | 0 |
| 1974 | 212,358 | 224,409 | 180,735 | 210,328 | 59,597 | 62,252 | 0 |
| 1975 | 197,090 | 209,602 | 170,609 | 194,778 | 50,614 | 51,106 | 0 |
| 1976 | 183,982 | 196,174 | 154,401 | 173,260 | 43,299 | 43,535 | 0 |
| 1977 | 202,468 | 213,344 | 172,820 | 191,293 | 45,247 | 42,939 | 15,053 |
| 1978 | 321,452 | 333,889 | 164,901 | 336,955 | 125,833 | 64,322 | 219,676 |
| 1979 | 208,248 | 208,248 | 155,379 | 160,466 | 79,862 | 61,844 | 96,263 |
| 1980 | 356,499 | 356,499 | 175,325 | 311,826 | 152,989 | 161,307 | 219,731 |
| 1981 | 187,738 | 187,738 | 156,600 | 183,040 | 42,759 | 43,889 | 46,494 |
| 1982 | 184,378 | 184,378 | 159,521 | 175,536 | 42,311 | 42,608 | 42,908 |
| 1983 | 184,825 | 184,825 | 158,924 | 167,593 | 40,310 | 41,017 | 40,963 |

## TABLE 9-3
## DAY CARE CENTER MAIL SURVEY
## BY PUBLIC HEALTH AREA
## FISCAL YEAR 1983

| PHA | Centers Responding | Age Categories | No. Adequately Protected | Total No. Children | Percent |
|---|---|---|---|---|---|
| PHA I | 70 | < 2 | 496 | 523 | 94.8 |
| | | 2-5 | 3,847 | 3,946 | 97.4 |
| PHA II | 29 | < 2 | 158 | 164 | 96.3 |
| | | 2-5 | 1,377 | 1,411 | 97.6 |
| PHA III | 127 | < 2 | 854 | 970 | 88.1 |
| | | 2-5 | 5,457 | 5,708 | 95.6 |
| PHA IV | 57 | < 2 | 299 | 329 | 90.9 |
| | | 2-5 | 2,480 | 2,558 | 97.0 |
| PHA V | 111 | < 2 | 562 | 635 | 88.5 |
| | | 2-5 | 4,079 | 4,197 | 97.2 |
| PHA VI | 98 | < 2 | 697 | 732 | 95.2 |
| | | 2-5 | 4,128 | 4,228 | 97.6 |
| SUB TOTAL | | < 2 | 3,066 | 3,353 | 91.4 |
| | | 2-5 | 21,456 | 22,143 | 96.9 |
| GRAND TOTAL | 492 | ALL AGES (< 2 & 2-5) | 24,522 | 28,496 | 96.2 |

| | |
|---|---|
| Total Licensed Centers: | 973* |
| Respondents: | 492 |
| Percent Responding: | 50.6 |

*Listing of day care centers is published yearly, and total is not fixed.

activity. Results of the evaluation showed that all but a very few hospitals with newborn nurseries are using Health Department materials. All of the negative respondents will be followed by personal visits in 1984. Approximately 12,000 mothers received by mail a special immunization message designed to reinforce the importance of disease prevention to mothers in socioeconomic groups who might not understand what immunization services are available or why immunizations are important for their babies early in life. Education programs such as this are becoming more important each year in the maintenance of the generally high immunization levels already achieved and the attempts to improve levels among selected population groups.

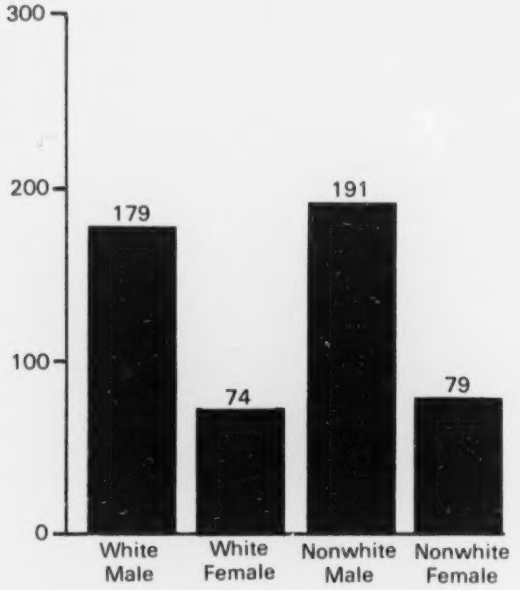
## Tuberculosis Division

There were 523 new cases of tuberculosis reported in Alabama in 1983. The total cases reported represent an approximate 17 percent reduction compared to the 631 cases reported in 1982. New tuberculosis case rates per 100,000 population decreased 19 percent, from 15.8 in 1982 to 12.8 in 1983. Of the 523 new cases reported, 521 or 99.6 percent were confirmed with positive bacteriological findings. Graphs 9-2, 9-3, 9-4, 9-5 and 9-6 and Tables 9-4 and 9-5 point out various aspects of new tuberculosis cases.

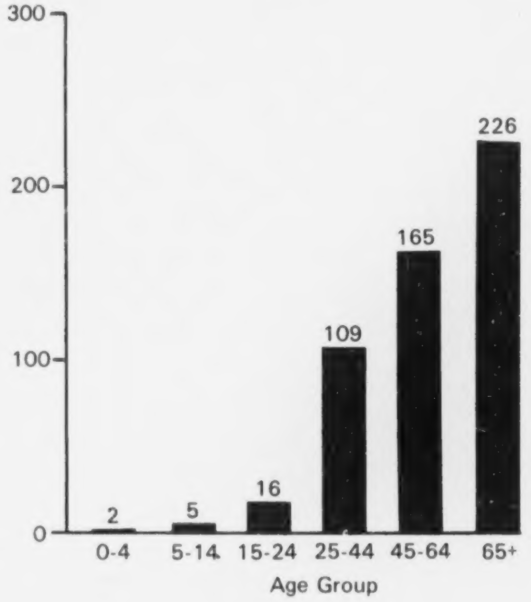
Extrapulmonary cases represented 12 percent of the total cases reported. Lymphatic and pleural cases represented nearly half of the extrapulmonary cases. No tuberculous meningitis cases were reported during the year. Table 9-6 indicates the number of pulmonary and extrapulmonary cases since 1965.

Based on the latest provisional information from the Centers for Disease Control in Atlanta for 1983, Alabama ranked eleventh in the nation in new tuberculosis case rates. The Southern United States (Public Health Services Region IV states) continued to report more tuberculosis cases and to have higher tuberculosis case rates per

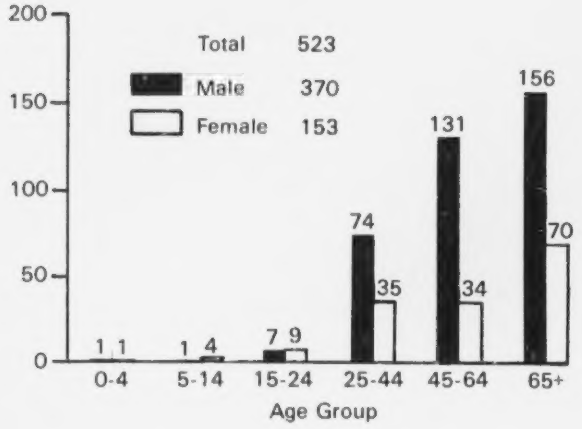
GRAPH 9-2
NEW TUBERCULOSIS CASES REPORTED BY RACE & SEX
1983



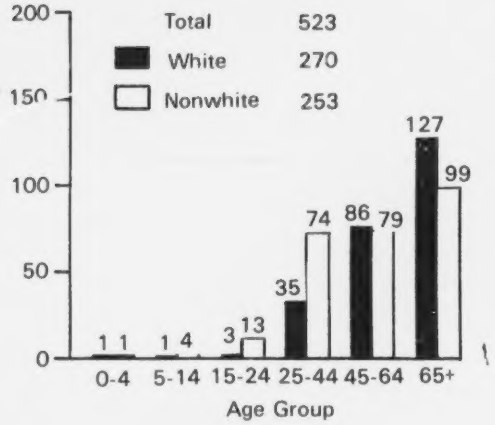
GRAPH 9-3
NEW TUBERCULOSIS CASES BY AGE GROUP
1983



GRAPH 9-4
NEW TUBERCULOSIS CASES BY AGE GROUP & SEX
1983



### GRAPH 9-5
### NEW TUBERCULOSIS CASES BY AGE GROUP & RACE
### 1983



*Juliet Hull and Sara Koster separate the mail in the serology laboratory.*

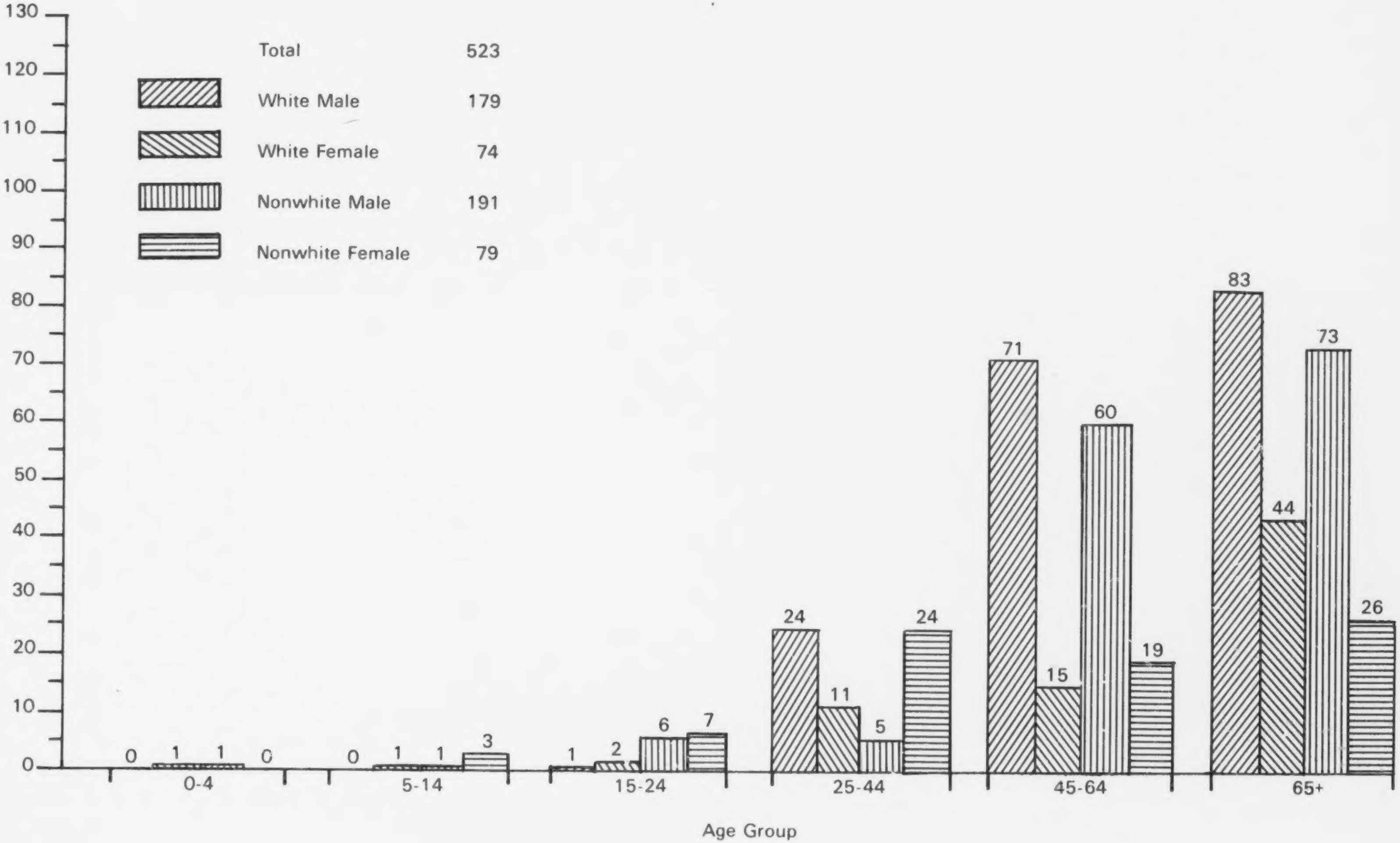
### TABLE 9-4
### NEW TUBERCULOSIS CASES BY RACE AND SEX
### 1960-1983

| Year | Total | White | | | Nonwhite | | |
|---|---|---|---|---|---|---|---|
| | | Total | Male | Female | Total | Male | Female |
| 1960 | 1,400 | 814 | 515 | 299 | 586 | 347 | 239 |
| 1961 | 1,357 | 718 | 478 | 240 | 639 | 369 | 270 |
| 1962 | 1,266 | 698 | 479 | 219 | 568 | 336 | 232 |
| 1963 | 1,326 | 716 | 478 | 238 | 610 | 385 | 225 |
| 1964 | 1,259 | 691 | 446 | 245 | 568 | 349 | 219 |
| 1965 | 1,417 | 748 | 525 | 223 | 669 | 413 | 256 |
| 1966 | 1,214 | 565 | 398 | 167 | 649 | 387 | 262 |
| 1967 | 1,379 | 618 | 423 | 195 | 761 | 463 | 298 |
| 1968 | 1,338 | 599 | 410 | 189 | 739 | 455 | 284 |
| 1969 | 1,203 | 508 | 353 | 155 | 695 | 421 | 274 |
| 1970 | 1,166 | 543 | 383 | 160 | 623 | 400 | 223 |
| 1971 | 985 | 455 | 319 | 136 | 530 | 321 | 209 |
| 1972 | 918 | 459 | 310 | 149 | 459 | 320 | 139 |
| 1973 | 790 | 361 | 244 | 117 | 429 | 288 | 141 |
| 1974 | 785 | 351 | 239 | 112 | 434 | 293 | 141 |
| 1975 | 780 | 354 | 237 | 117 | 426 | 289 | 137 |
| 1976 | 824 | 392 | 280 | 112 | 432 | 292 | 140 |
| 1977 | 704 | 314 | 214 | 100 | 390 | 269 | 121 |
| 1978 | 672 | 317 | 229 | 88 | 355 | 236 | 119 |
| 1979 | 644 | 308 | 204 | 104 | 336 | 220 | 116 |
| 1980 | 663 | 296 | 210 | 86 | 367 | 254 | 113 |
| 1981 | 640 | 316 | 224 | 92 | 324 | 227 | 97 |
| 1982 | 631 | 299 | 219 | 80 | 332 | 235 | 97 |
| 1983 | 523 | 253 | 179 | 74 | 270 | 191 | 79 |

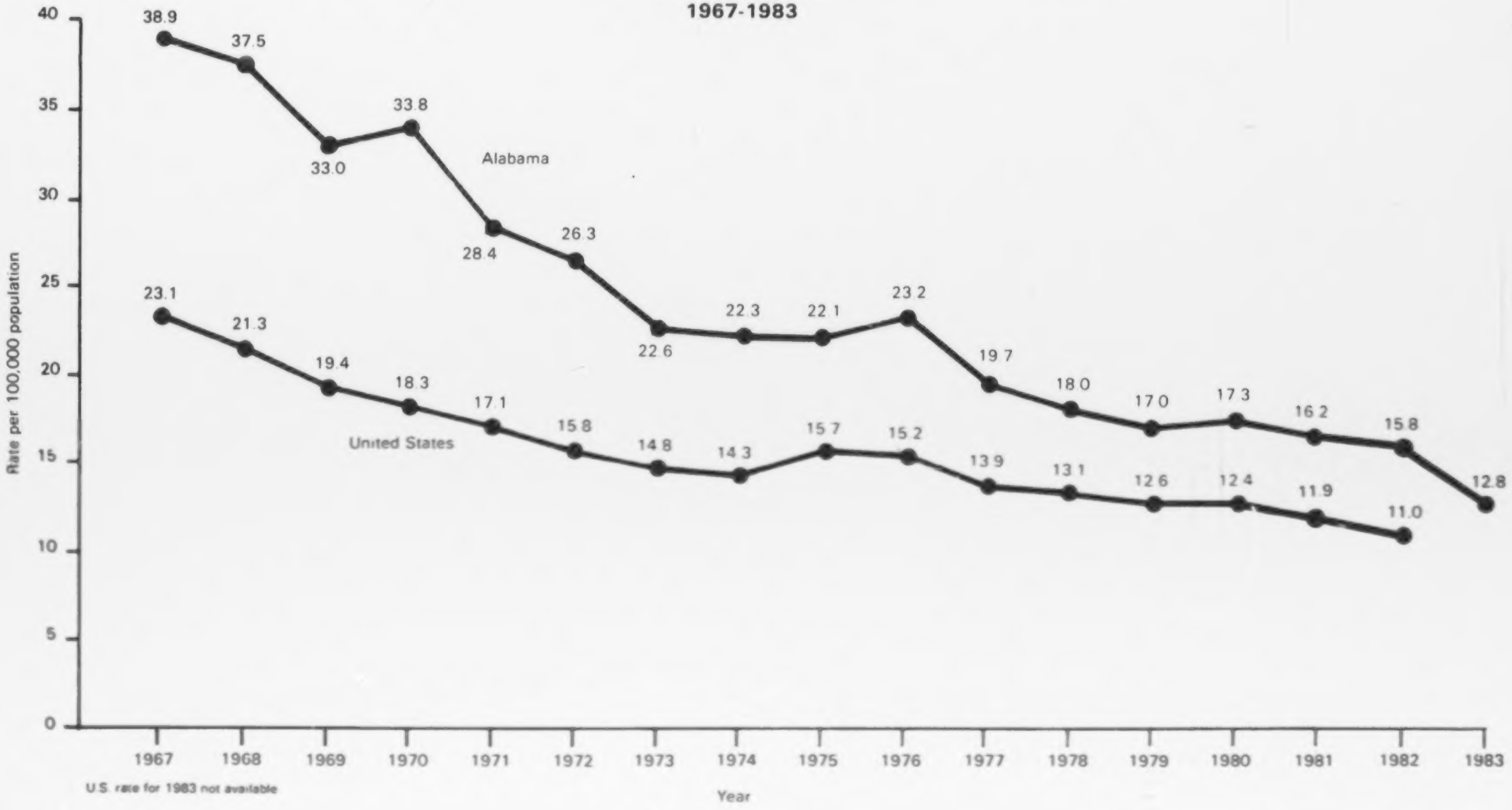
### TABLE 9-5
### ALABAMA TUBERCULOSIS CASES, CASE RATES AND RANK IN THE U.S.
### 1960-1983

| Year | Cases | Rate | Rank |
|---|---|---|---|
| 1960 | 1,302 | 39.8 | 11 |
| 1961 | 1,313 | 39.5 | 10 |
| 1962 | 1,164 | 35.1 | 12 |
| 1963 | 1,326 | 39.3 | 7 |
| 1964 | 1,259 | 36.7 | 8 |
| 1965 | 1,417 | 40.6 | 3 |
| 1966 | 1,214 | 34.6 | 7 |
| 1967 | 1,379 | 38.9 | 3 |
| 1968 | 1,338 | 37.5 | 3 |
| 1969 | 1,203 | 33.0 | 3 |
| 1970 | 1,166 | 33.8 | 3 |
| 1971 | 985 | 28.4 | 3 |
| 1972 | 918 | 26.3 | 3 |
| 1973 | 790 | 22.6 | 5 |
| 1974 | 785 | 22.3 | 4 |
| 1975 | 780 | 22.1 | 7 |
| 1976 | 824 | 23.2 | 3 |
| 1977 | 704 | 19.7 | 9 |
| 1978 | 672 | 18.0 | 10 |
| 1979 | 644 | 17.0 | 9 |
| 1980 | 663 | 17.3 | 6 |
| 1981 | 640 | 16.2 | 9 |
| 1982 | 631 | 15.8 | 7 |
| 1983 | 523 | 12.8 | 11 |

## GRAPH 9-6
## NEW TUBERCULOSIS CASES BY AGE GROUP, RACE & SEX
## 1983



## GRAPH 9-7
## ALABAMA AND UNITED STATES
## TB CASE RATES
## 1967-1983



U.S. rate for 1983 not available

### TABLE 9-6
### PULMONARY & EXTRAPULMONARY CASES
### 1965-1983

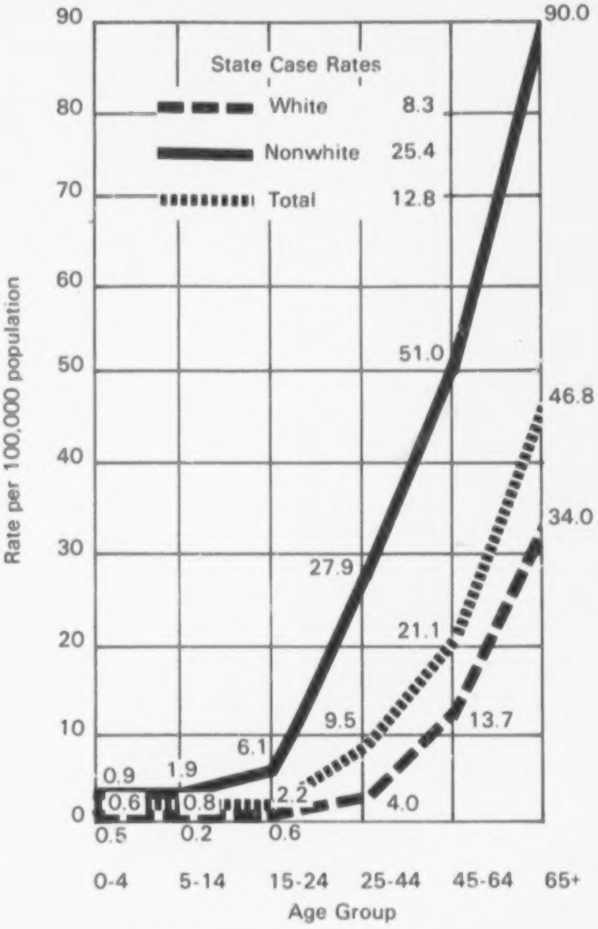
| Year | Pulmonary Cases | Extrapulmonary Cases | Total TB Cases Reported |
|---|---|---|---|
| 1965 | 1,374 | 43 | 1,417 |
| 1966 | 1,162 | 52 | 1,214 |
| 1967 | 1,322 | 57 | 1,379 |
| 1968 | 1,281 | 57 | 1,338 |
| 1969 | 1,129 | 74 | 1,203 |
| 1970 | 1,111 | 55 | 1,166 |
| 1971 | 909 | 76 | 985 |
| 1972 | 859 | 59 | 918 |
| 1973 | 735 | 55 | 790 |
| 1974 | 721 | 64 | 785 |
| 1975 | 719 | 61 | 780 |
| 1976 | 760 | 64 | 824 |
| 1977 | 634 | 70 | 704 |
| 1978 | 601 | 71 | 672 |
| 1979 | 580 | 64 | 644 |
| 1980 | 599 | 64 | 663 |
| 1981 | 589 | 51 | 640 |
| 1982 | 556 | 75 | 631 |
| 1983 | 461 | 62 | 523 |
| TOTAL | 16,102 | 1,174 | 17,276 |

100,000 population than any other region of the nation. In fact the eight Southeastern states ranked in the top 14 states in the nation having the highest tuberculosis rates. Graph 9-7 compares Alabama's case rates with the national average.

The number of new cases in the state was about evenly divided between nonwhite and white. However case rates among nonwhites continued to be three times greater than that of the white population, 25.4 and 8.3 respectively. Although nonwhites accounted for only 25 percent of the state's population, they represented slightly over half of the new tuberculosis cases reported. Relative to sex and age, males and persons 45 years of age and older represented approximately two-thirds of the new cases. Case rates in 1983 were 39.0 for nonwhite males, 13.8 for nonwhite females, 12.1 for white males and 4.7 for white females. Graphs 9-8 and 9-9 deal with tuberculosis rates.

The counties with the highest case rates in 1983 were Hale with 32.1, Tuscaloosa with 26.2, Limestone with 24.9, Etowah with 23.6, Perry with 20.1, and Cherokee with 20.0. No new cases were reported in twelve of Alabama's 67 counties. These were Bibb in PHA II; Chilton, Clay, Cleburne and Coosa in PHA IV; and Barbour, Bullock, Crenshaw, Dale, Geneva, Henry and Lowndes in PHA V. Table 9-7 supplies details of tuberculosis for each county.

### GRAPH 9-8
### NEW TUBERCULOSIS CASE RATES
### BY AGE GROUP & RACE
### 1983



Jefferson and Mobile counties, with one-fourth of the state's population, reported approximately 30 percent of the total new cases in 1983. Among 52 cities in the United States with 250,000 or more population, Birmingham ranked thirteenth in the nation in new tuberculosis case rates. Among eight city-county areas in the nation with over 100,000 population, Mobile, Madison and Montgomery counties ranked first, fifth and eighth respectively in TB case rates.

Ten of Alabama's 67 counties represented approximately half of the state's population and almost two-thirds of the tuberculosis cases reported. These counties are Jefferson, Mobile, Madison, Tuscaloosa, Montgomery, Etowah, Calhoun, Limestone, Lauderdale and Dallas. New TB case rates by public health area were 14.5 in Public Health Area I, 20.6 in Public Health Area II, 13.6 in Public Health Area III, 11.9 in Public Health Area IV, 8.6 in Public Health Area V and 12.5 in Public Health Area VI.

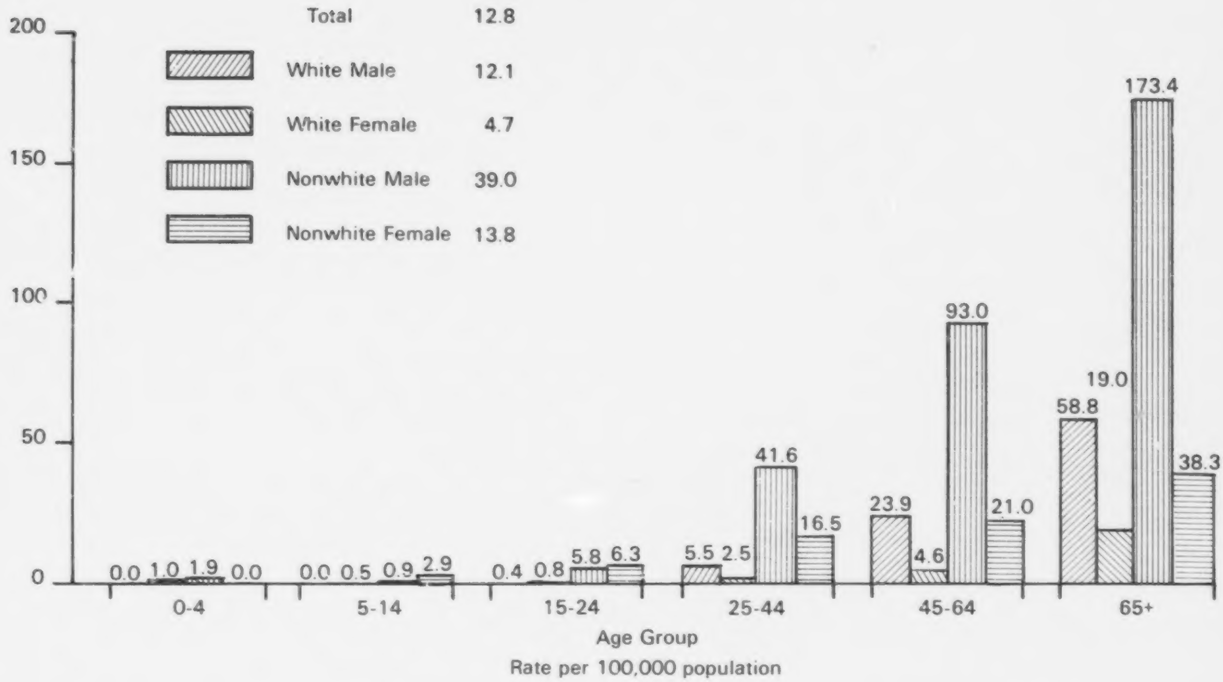
# TABLE 9-7
# ALABAMA TB CONTROL
# 1982 AND 1983

| | New TB Cases Reported | | County Rank in No. Cases Reported | New TB Case Rate per 100,000 Pop. | | Total TB Cases in File | | Population |
|---|---|---|---|---|---|---|---|---|
| | 1982 | 1983 | 1983 | Rate | Rank | 1982 | 1983 | July, 1983 |
| **PHA I** | | | | | | | | |
| Colbert | 4 | 9 | 14 | 15.9 | 13 | 4 | 4 | 56,700 |
| Cullman | 6 | 8 | 16 | 12.2 | 30 | 7 | 5 | 65,500 |
| Franklin | 5 | 3 | 35 | 10.0 | 35 | 2 | 2 | 30,100 |
| Jackson | 6 | 3 | 39 | 5.3 | 50 | 5 | 2 | 56,500 |
| Lauderdale | 14 | 12 | 9 | 13.9 | 18 | 12 | 14 | 86,100 |
| Lawrence | 9 | 6 | 20 | 19.0 | 8 | 5 | 1 | 31,500 |
| Limestone | 7 | 12 | 8 | 24.9 | 3 | 8 | 7 | 48,100 |
| Madison | 33 | 39 | 3 | 18.7 | 9 | 29 | 27 | 208,100 |
| Marion | 11 | 2 | 48 | 6.1 | 47 | 9 | 7 | 32,800 |
| Marshall | 11 | 11 | 11 | 15.7 | 14 | 10 | 8 | 69,900 |
| Morgan | 19 | 9 | 15 | 9.4 | 36 | 14 | 14 | 95,800 |
| Winston | 4 | 3 | 34 | 12.4 | 27 | 3 | 1 | 24,200 |
| TOTAL | 129 | 117 | 2 | 14.5 | 2 | 108 | 92 | 805,300 |
| **PHA II** | | | | | | | | |
| Bibb | 1 | 0 | 63 | 0.0 | 63 | 3 | 1 | 16,600 |
| Fayette | 1 | 2 | 44 | 10.1 | 34 | 3 | 2 | 19,900 |
| Greene | 1 | 2 | 41 | 17.9 | 10 | 2 | 0 | 11,200 |
| Hale | 1 | 5 | 23 | 32.1 | 1 | 2 | 4 | 15,600 |
| Lamar | 1 | 2 | 43 | 11.6 | 31 | 2 | 2 | 17,300 |
| Pickens | 5 | 2 | 45 | 9.1 | 38 | 6 | 2 | 22,000 |
| Tuscaloosa | 32 | 38 | 4 | 26.2 | 2 | 37 | 44 | 145,300 |
| TOTAL | 42 | 51 | 6 | 20.6 | 1 | 55 | 55 | 247,900 |
| **PHA III** | | | | | | | | |
| Blount | 7 | 5 | 25 | 12.4 | 28 | 5 | 1 | 40,200 |
| Chilton | 2 | 0 | 66 | 0.0 | 66 | 6 | 0 | 32,800 |
| Jefferson | 120 | 105 | 1 | 15.3 | 15 | 68 | 58 | 688,500 |
| St. Clair | 10 | 3 | 37 | 6.5 | 45 | 11 | 4 | 46,200 |
| Shelby | 5 | 7 | 18 | 9.3 | 37 | 12 | 5 | 74,900 |
| Walker | 8 | 10 | 13 | 13.5 | 20 | 10 | 5 | 73,900 |
| TOTAL | 152 | 130 | 1 | 13.6 | 3 | 112 | 73 | 956,500 |
| **PHA IV** | | | | | | | | |
| Calhoun | 28 | 17 | 7 | 13.5 | 21 | 19 | 20 | 125,700 |
| Chambers | 2 | 2 | 49 | 5.0 | 52 | 2 | 2 | 40,300 |
| Cherokee | 2 | 4 | 26 | 20.0 | 6 | 1 | 3 | 20,000 |
| Clay | 1 | 0 | 60 | 0.0 | 60 | 1 | 0 | 14,100 |
| Cleburne | 1 | 0 | 58 | 0.0 | 58 | 3 | 0 | 13,200 |
| Coosa | 0 | 0 | 57 | 0.0 | 57 | 0 | 0 | 11,700 |
| DeKalb | 18 | 3 | 40 | 5.1 | 51 | 8 | 2 | 58,400 |
| Etowah | 23 | 25 | 6 | 23.6 | 4 | 12 | 13 | 106,100 |
| Randolph | 2 | 1 | 54 | 4.8 | 54 | 0 | 1 | 20,900 |
| Talladega | 9 | 8 | 17 | 10.3 | 33 | 9 | 9 | 77,400 |
| Tallapoosa | 5 | 3 | 36 | 7.5 | 41 | 6 | 4 | 40,200 |
| TOTAL | 91 | 63 | 5 | 11.9 | 5 | 61 | 54 | 528,000 |

## TABLE 9-7 (continued)
## ALABAMA TB CONTROL
## 1982 AND 1983

| | New TB Cases Reported | | County Rank in No. Cases Reported | New TB Case Rate per 100,000 Pop. | | Total TB Cases in File | | Population |
|---|---|---|---|---|---|---|---|---|
| | 1982 | 1983 | 1983 | Rate | Rank | 1982 | 1983 | July, 1983 |
| **PHA V** | | | | | | | | |
| Autauga | 3 | 1 | 55 | 2.9 | 55 | 4 | 1 | 35,000 |
| Barbour | 2 | 0 | 65 | 0.0 | 65 | 2 | 2 | 25,600 |
| Bullock | 4 | 0 | 56 | 0.0 | 56 | 3 | 0 | 10,200 |
| Butler | 3 | 3 | 33 | 13.8 | 19 | 2 | 3 | 21,700 |
| Coffee | 2 | 2 | 50 | 5.0 | 53 | 2 | 1 | 40,400 |
| Covington | 4 | 4 | 30 | 10.5 | 32 | 6 | 4 | 38,000 |
| Crenshaw | 1 | 0 | 61 | 0.0 | 61 | 2 | 0 | 14,500 |
| Dale | 9 | 0 | 67 | 0.0 | 67 | 7 | 6 | 50,800 |
| Elmore | 3 | 6 | 21 | 12.8 | 24 | 4 | 4 | 47,000 |
| Geneva | 0 | 0 | 64 | 0.0 | 64 | 0 | 0 | 25,200 |
| Henry | 2 | 0 | 62 | 0.0 | 62 | 2 | 2 | 16,100 |
| Houston | 9 | 6 | 22 | 7.2 | 42 | 9 | 9 | 83,200 |
| Lee | 10 | 11 | 12 | 13.4 | 22 | 10 | 11 | 82,000 |
| Lowndes | 0 | 0 | 59 | 0.0 | 59 | 2 | 0 | 13,500 |
| Macon | 6 | 4 | 28 | 14.7 | 16 | 7 | 7 | 27,300 |
| Montgomery | 24 | 28 | 5 | 13.4 | 23 | 29 | 29 | 209,200 |
| Pike | 1 | 2 | 47 | 6.8 | 44 | 1 | 1 | 29,400 |
| Russell | 5 | 3 | 38 | 6.2 | 46 | 4 | 3 | 48,300 |
| TOTAL | 88 | 70 | 4 | 8.6 | 6 | 96 | 83 | 817,400 |
| **PHA VI** | | | | | | | | |
| Baldwin | 9 | 7 | 19 | 8.1 | 39 | 12 | 4 | 86,200 |
| Choctaw | 3 | 1 | 52 | 5.8 | 48 | 3 | 1 | 17,100 |
| Clarke | 2 | 4 | 29 | 14.2 | 17 | 7 | 5 | 28,200 |
| Conecuh | 2 | 2 | 42 | 12.3 | 29 | 1 | 1 | 16,200 |
| Dallas | 9 | 11 | 10 | 19.5 | 7 | 16 | 13 | 56,500 |
| Escambia | 7 | 5 | 24 | 12.5 | 26 | 11 | 12 | 39,900 |
| Marengo | 3 | 2 | 46 | 7.8 | 40 | 5 | 5 | 25,700 |
| Mobile | 83 | 48 | 2 | 12.6 | 25 | 89 | 65 | 381,700 |
| Monroe | 3 | 4 | 27 | 17.1 | 12 | 3 | 3 | 23,400 |
| Perry | 4 | 3 | 31 | 20.1 | 5 | 6 | 5 | 14,900 |
| Sumter | 2 | 3 | 32 | 17.5 | 11 | 0 | 0 | 17,100 |
| Washington | 2 | 1 | 53 | 5.8 | 49 | 2 | 1 | 17,200 |
| Wilcox | 0 | 1 | 51 | 6.9 | 43 | 1 | 0 | 14,400 |
| TOTAL | 129 | 92 | 3 | 12.5 | 4 | 156 | 115 | 738,500 |
| STATE | 631 | 523 | | 12.8 | | 588 | 472 | 4,093,600 |

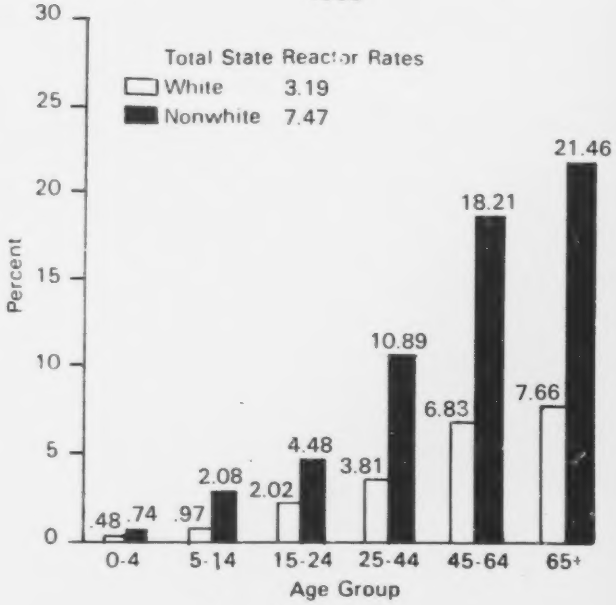
## GRAPH 9-9
## NEW TUBERCULOSIS CASE RATE BY AGE GROUP, RACE & SEX
## 1983



## TABLE 9-8
## NEW TB CASES BY SOURCE OF ORIGINAL REPORT
## 1983

| Source | No. Cases | Percent of Total Reported |
|---|---|---|
| Penal & Mental Institutions | 0 | 0 |
| General Hospitals | 87 | 16.6 |
| Veterans' Hospitals | 30 | 5.7 |
| County Health Departments | 305 | 58.3 |
| Out-of-State Health Departs. | 1 | 0.2 |
| Private Physicians | 59 | 11.3 |
| Death Certificates | 3 | 0.6 |
| Military | 2 | 0.4 |
| Contract Hospitals | 34 | 6.5 |
| All Other Sources | 2 | 0.4 |
| GRAND TOTAL | 523 | 100.0 |

## GRAPH 9-10
## TUBERCULIN POSITIVE REACTOR RATE BY AGE GROUP AND RACE
## 1983



At the end of the calendar year, tuberculosis prevalence reports indicated that there were approximately 900 diagnosed cases, suspects and other persons with nontuberculous mycobacterial disease receiving multiple drug therapy and medical supervision by county health departments and contract hospitals. With adherence to the contract hospital admission criteria and through utilization of the outpatient clinics, the program was able to manage 57 percent of the new cases entirely on an outpatient basis. All cases completing 9 to 12 months of INH and Rifampin therapy continued to be closed to medical supervision, provided sputum cultures were negative for at least six months. Only complicated and drug resistant cases were recommended for alternative drug regimens and longer durations of treatment.

Of the total cases reported in 1983, county health departments reported 58.3 percent; private physicians reported 11.3 percent; and general hospitals reported 16.6 percent. Only three cases or 0.6 percent were reported as a result of death certificate information. Table 9-8 discloses the source of tuberculosis reports. After the initial diagnosis and reporting of cases, most patients were referred to county health department clinics for medical supervision and treatment. Also contact identification, investigation, examination and preventive treatment were provided by the clinic and outreach programs. Consequently nearly 95 percent of the known cases, contacts and suspects in the state received their medical supervision and treatment through public health clinics and contract hospitals.

As a result of the private laboratory reporting law, 21 laboratories reported 292 positive cultures and 215 positive smears to the Tuberculosis Control Division during the year. Follow-up investigation of these private physician positive reports resulted in confirming 65 new tuberculosis cases. The 65 cases represented 12.4 percent of the total tuberculosis morbidity in 1983. Investigation of these reports also enabled the Tuberculosis Program to assist the physician in the treatment of the cases and to initiate epidemiological investigations, including examination and preventive treatment of contacts.

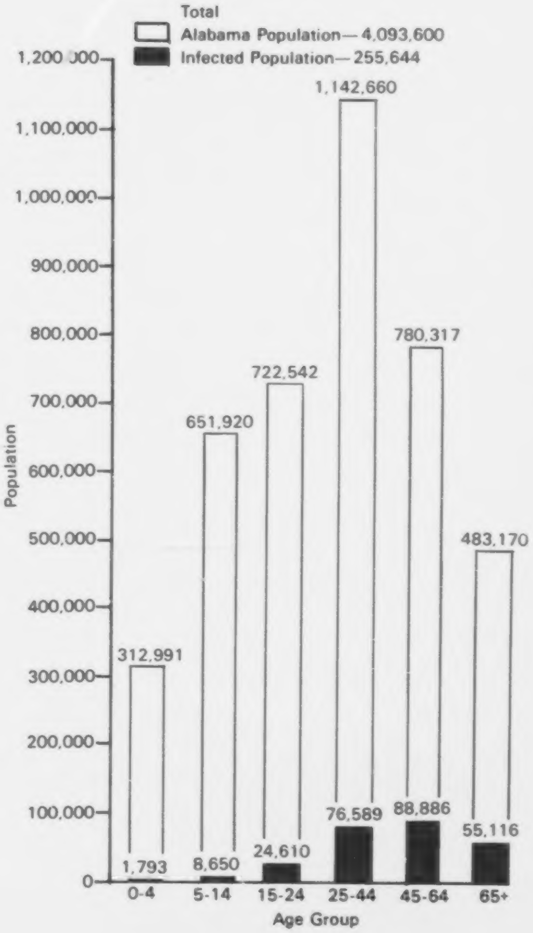
Patient compliance in taking prescribed medication continued to be the greatest problem in tuberculosis control. For this reason supervised daily therapy and supervised intermittent therapy played a major role in tuberculosis treatment programs. Currently efforts are made before initiation of therapy to determine which patients are most likely to be poor compliers because of problems with alcohol or other reasons. As a result, many of the known cases are placed on some form of supervised or observed therapy.

County health departments reported 149,171 tuberculin tests performed in 1983. Of this total, 78 percent were read with 5,433 having results of 10 millimeters or greater for an overall reactor rate or infection rate of 4.67 percent. Positive tuberculin skin tests rates ranged from a low of 0.58 percent among persons (including contacts) from infancy to four years of age to 10.97 percent for persons 65 years of age or older. For close contacts and other than close contacts examined in 1983, infection rates were 35.6 percent and 14.6 percent respectively. Positive skin test rates among nonwhites continued to be twice as great as those of the white population. When applying Alabama's tuberculin positive skin test rates by race and sex to the total population, the state's infected population totals 255,644 individuals. The estimated number of infected persons ranges from a low of 10,443 under 15 years of age to a high of 88,886 for persons in the 45 through 64 year old age bracket. It is estimated that 90 percent of the future tuberculosis cases in Alabama will come from this reservoir of infected persons. Graph 9-10 reveals the reactor rates by age group while Graph 9-11 suggests the potential infected population by age group.

GRAPH 9-11

TOTAL POPULATION AND PERSONS INFECTED WITH TUBERCLE BACILLI BY AGE GROUP

1983



The Tuberculosis Program continued to stress that low priority be placed on the examination of food handlers and similar groups for tuberculosis in connection with job requirements. Most of the county health departments have discontinued these activities as they have proven to be unproductive in finding or preventing tuberculosis. The Tuberculosis Program continued to recommend that these examinations be discontinued.

Other than contacts, the only persons required by law to be screened for tuberculosis are school employees. School employees are recommended for examination for tuberculosis when they are initially employed only. No subsequent periodic examinations are recommended for this group.

During 1983, 4,410 contacts and other high risk persons were placed on INH preventive therapy, bringing the total to 131,133 started on the program since 1965. Only 431 or 0.3 percent of these approximately 131,000 individuals were later reported with tuberculous disease. Of these 431 individuals who were recommended for preventive therapy and later developed disease, records indicate that 73 percent were issued and took less than six months of preventive medication.

The Tuberculosis Control Division continued contracts with six general hospitals for the care of tuberculosis inpatients during 1983. The contract hospital in Birmingham was transferred to Baptist Medical Center-Montclair. One new contract was negotiated with Childrens' Hospital in Birmingham for statewide use. The contract hospitals recorded 224 admissions, 226 discharges and 3,110 patient days during the fiscal year. The average hospital patient stay was 13.8 days. The average contract hospital cost was approximately $344.30 per patient day. The state tuberculosis budget cost was $161.96 per day with third party insurance paying the difference. The average cost per patient hospitalized in 1983 was $4,737.97, and the average state TB budget cost was $2,228.78. Tables 9-9, 9-10 and 9-11 relate details of hospitalization of tuberculosis patients.

### TABLE 9-9
### CONTRACT HOSPITAL INFORMATION
### JANUARY 1983-DECEMBER 1983

| Hospital | Admissions | Discharges | Patient Days | Average Pt. Stay |
|---|---|---|---|---|
| Baptist Memorial<br>Gadsden | 16 | 17 | 200 | 11.8 days |
| Baptist-Montclair*<br>Birmingham | 6 | 6 | 83 | 13.8 days |
| Children's Hospital*<br>Birmingham | 0 | 0 | — | — |
| Cooper Green**<br>Birmingham | 27 | 28 | 332 | 11.9 days |
| Druid City<br>Tuscaloosa | 48 | 48 | 827 | 17.2 days |
| Eliza Coffee Mem.<br>Florence | 13 | 13 | 182 | 14.0 days |
| Huntsville Hospital<br>Huntsville | 37 | 36 | 506 | 14.1 days |
| St. Margaret's<br>Montgomery | 13 | 13 | 206 | 15.8 days |
| Univ. of So. Ala.<br>Medical Center<br>Mobile | 39 | 39 | 381 | 9.8 days |
| TOTAL | 199 | 200 | 2,717 | 13.6 days |
| Board of Corrections | 2 | 2 | 166 | 83.0 days |

*October 1983—December 1983
**January 1983—September 1983

## TABLE 9-10
## CONTRACT HOSPITAL INFORMATION
## OCTOBER 1, 1982-MARCH 31, 1983

| Contract Hospital | Current Bed Allocation at $30 Per Day | Admissions | Discharges | Total Pat. Days | Average Patient Stay | Average Per Diem Cost | Total Hosp. Cost | Average Hosp. Cost Per Pat. Treated |
|---|---|---|---|---|---|---|---|---|
| Baptist Memorial Gadsden, Alabama | 11 | 15 | 15 | 153 | 10.2 | $390.97 | $59,818.71 | $3,987.91 |
| Cooper Green Hospital Birmingham, Alabama | 14 | 20 | 19 | 189 | 9.9 | 320.56 | 60,586.45 | 3,188.76 |
| Druid City Hospital Tuscaloosa, Alabama | 7 | 32 | 35 | 636 | 18.2 | 336.16 | 213,798.12 | 6,108.52 |
| Eliza Coffee Mem. Hosp. Florence, Alabama | 2 | 6 | 8 | 112 | 14.0 | 232.02 | 25,986.71 | 3,248.34 |
| Huntsville Hospital Huntsville, Alabama | 2 | 16 | 16 | 239 | 14.9 | 420.60 | 100,524.23 | 6,282.76 |
| St. Margaret's Hosp. Montgomery, Alabama | 4 | 6 | 6 | 86 | 14.3 | 332.35 | 28,582.25 | 4,763.71 |
| University of South Ala. Medical Center Mobile, Alabama | 6 | 24 | 25 | 223 | 8.9 | 331.91 | 74,016.93 | 2,960.68 |
| TOTALS | 46 | 119 | 124 | 1,638 | 13.2 | $343.90 | $563,313.40 | $4,542.85 |
| State Board of Corrections | 1 | 1 | 1 | 63 | 63.0 | — | — | — |

## TABLE 9-11
## HOSPITAL PATIENT ADMISSIONS AND DISCHARGES
## 1973-1983

| Year | 1973* | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Admissions | 745 | 668 | 557 | 459 | 473 | 470 | 358 | 364 | 321 | 251 | 199 |
| Total Discharges | 1,016 | 738 | 547 | 512 | 465 | 482 | 357 | 364 | 331 | 258 | 200 |

*Beginning of General Hospital Contract Program

In addition a contract was renegotiated with Correctional Medical Systems, Inc., for recalcitrant patients to be hospitalized at the Kilby hospital and the Tutwiler infirmary. The contract provides for one bed as needed for male patients at Kilby Correctional Facility and one bed at Julia Tutwiler Facility for females. The recalcitrant patient court order program is only utilized for the extremely difficult, nonmotivated, noncomplying tuberculosis patient. These beds are used when all public health measures have been exhausted to get the infectious patient to take his medication. In these few instances, the court must determine that the patient has infectious tuberculosis, and the patient must also be declared a public health hazard to his family and community. Patients are kept for a minimum of six weeks, and failure to report to the county health department clinic as recommended after discharge may result in the patient being rehospitalized at the correctional facility. The contract serves primarily as a deterrent as only two patients were admitted under the program in 1983. The two patients had a cumulative total of 229 days with an average stay of 73.3 days.

The State TB Medical Advisory Council developed and the State Committee of Public Health approved the "Tuberculin Skin Testing Guidelines" during the year. In addition the TB physician coordinators are meeting with local medical societies and hospital staffs upon request in an effort to further professional education concerning the modern management of tuberculosis. Also the state TB medical consultant visited most of the county health departments in the state during 1983. The consultant reviewed all cases and suspects on multiple drug therapy to ensure that the state protocol for the treatment of TB was being followed.

This division and the Tuberculosis Division of the Clinical Laboratory are participating in a drug resistance study with the Centers for Disease Control. The study, which began in 1976, indicates that Alabama has a primary drug resistance rate of 4 percent which is one of the lowest in the nation.

Jefferson and Mobile county health departments continue to participate in a Short-Course TB Therapy Study with CDC. The study, which began in 1982, is designed to evaluate the effectiveness of a six month regimen compared to a nine month regimen of INH and Rifampin for the treatment of tuberculosis. The six month regimen includes INH, Pyrazinamide and Rifampin for two months followed by INH and Rifampin for the remaining four months. Birmingham and Mobile are among 21 areas participating in this high priority research project.

**Activities of Program Nurses**—In addition to assisting the county health departments with priority tuberculosis control activities, tuberculosis program nurses worked with private physicians, hospitals and other agencies in connection with TB prevention and treatment programs. These nurses provided services to 274 TB outpatient clinics and made 2,135 visits to county health departments.

The nurses collected 4,740 sputum specimens by the aerosol induction technique and administered 8,513 Mantoux tuberculin skin tests.

The nurses made 1,311 home visits to tuberculosis patients and their families and 570 visits to nursing homes, schools, industries and private physicians in connection with tuberculosis control activities.

The program nurses conducted 26 in-service education programs with 479 persons attending.

**Activities of Field Repreentatives**—In 1983 field investigators brought or returned 9,528 patients to medical supervision. These patients consisted of 2,386 cases, 3,648 contacts of new cases, 525 suspects and 2,969 high risks tuberculin reactors.

The representatives visited 234 private physicians to obtain X-ray, sputum and treatment status on delinquent patients and made 340 hospital visits related to tuberculosis control activities. Representatives assisted in 928 county health department outpatient clinics and in 93 special tuberculin testing and follow-up X-ray programs in the state. They collected 3,534 aerosol sputa.

In administering 6,595 Mantoux tuberculin tests, they used the Ped-O-Jet technique with 3,660 and the syringe with 2,935.

**Activities of the X-ray Technician**—During 1983 X-ray technicians held 926 regular and outpatient clinics at the county health departments at which they made 9,944 chest X-ray examinations. The technicians maintained all X-ray film files and performed minor repairs on X-ray machines, sputum induction machines, Ped-O-Jet skin testing guns and other related equipment on a statewide basis.

The technicians conducted field investigations and performed aerosol induced sputum examinations as needed.

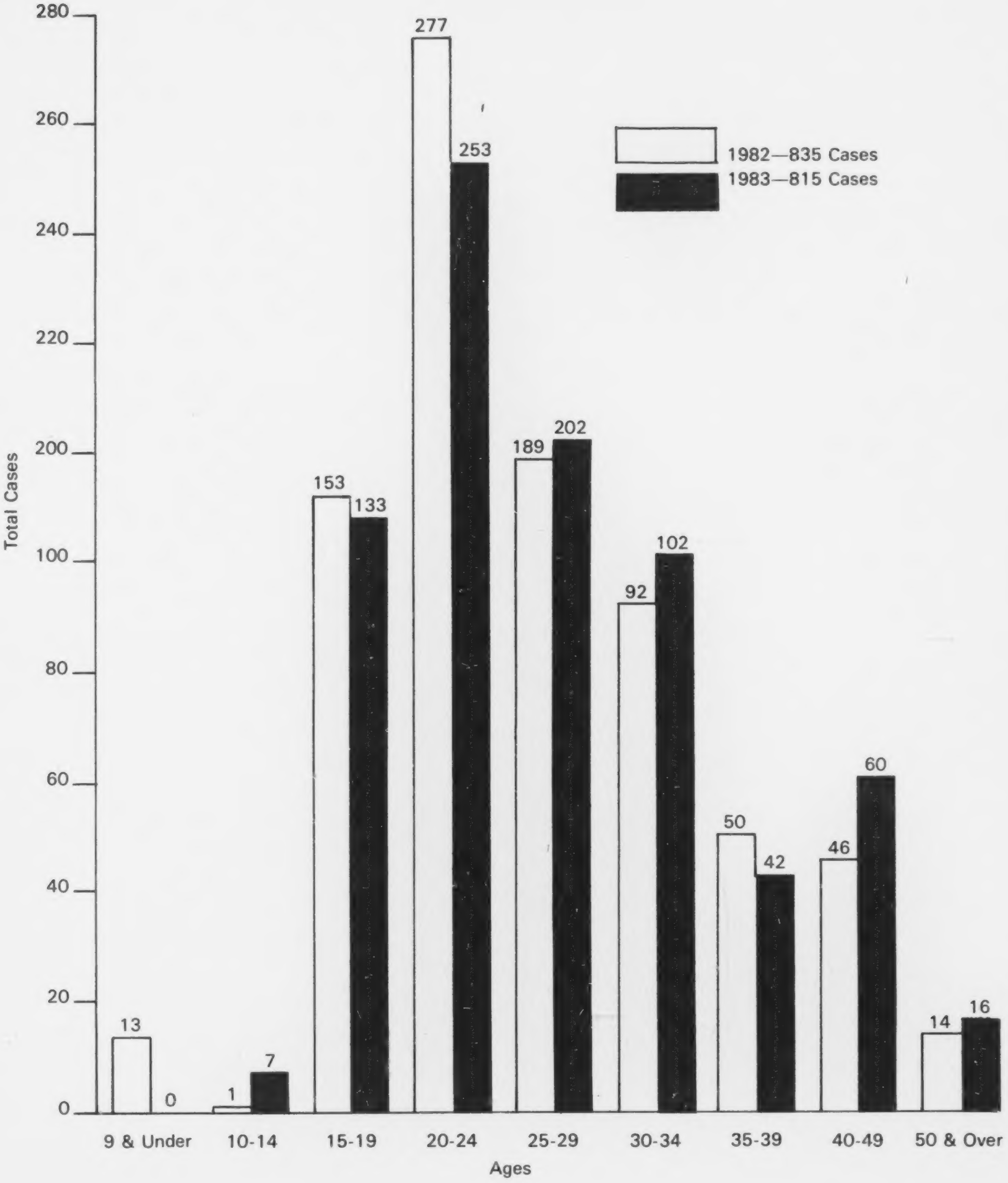
## Division of Venereal Disease Control

Not since the early 1970s has Alabama demonstrated such an overall stabilization in venereal disease morbidity as was reported during calendar 1983. Through extensive epidemiological efforts, significant decreases in morbidity were achieved in infectious syphilis and gonorrhea.

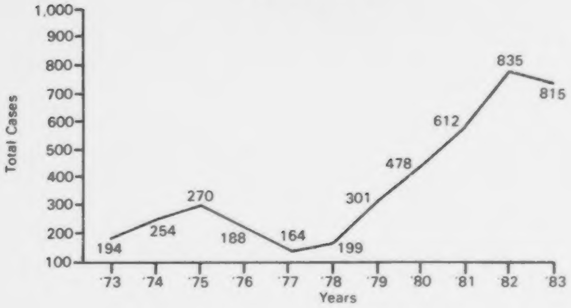
**Syphilis**—During 1983, 815 cases of primary and secondary syphilis were reported for a 2.4 percent decrease, compared to 1982 when 835 cases were reported. Morbidity by age group for both years is illustrated in Graph 9-12. Graph 9-13 gives the number of cases of

*Chris Thacker, TB nurse in PHA IV, is giving a Mantoux tuberculin skin test.*

## GRAPH 9-12
## PRIMARY AND SECONDARY SYPHILIS
## TOTAL CASES BY AGE GROUPS
## 1982-1983



### GRAPH 9-13
### PRIMARY AND SECONDARY SYPHILIS MORBIDITY
### 1973-1983



primary and secondary syphilis from 1973 through 1983 while Graph 9-14 shows total syphilis for those years.

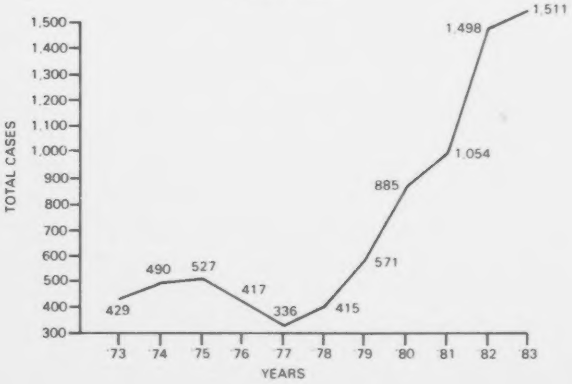
Early latent syphilis also declined—from 530 cases in 1982 to 528 cases in 1983. This 0.4 percent reduction was in direct contrast to 1982 when early latent syphilis morbidity escalated 43.6 percent over the 369 cases reported in 1981. As Graph 9-15 shows, this year represents the first decrease since 1977. But the reports of late latent syphilis and congenital syphilis have fluctuated as Graphs 9-16 and 9-17 indicate. Late latent syphilis increased by 24 percent, from 129 cases in 1982 to 160 cases in 1983. Congenital syphilis morbidity doubled from four cases in 1982 to eight cases in 1983. These cases represent the highest morbidity in more than a decade.

Rate of incidence of primary and secondary syphilis gives a different perspective. Graph 9-18 compares the rates for Alabama with the national rates from 1973 through 1983. Graph 9-19 depicts age-specific rates by sex.

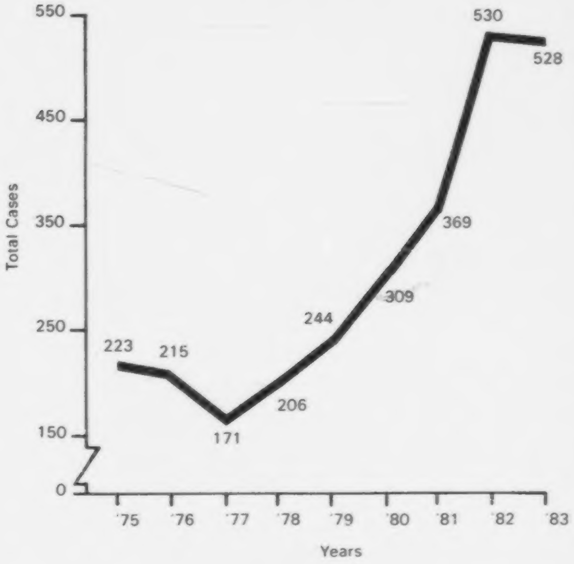
Remarkably three counties which were identified as major contributors to the 1982 increase in infectious syphilis contributed most to the 1983 decrease. The 216 cases in Jefferson County, the 124 cases in Montgomery and the 27 cases in Houston County denote decreases of 21.5 percent, 29.9 percent and 66.3 percent respectively.

Despite the overall decrease in infectious syphilis morbidity, several counties reported noticeable increases. In Tuscaloosa County syphilis increased 83 percent, from 12 cases in 1982 to 22 cases in 1983. Madison County's morbidity jumped from 9 cases in 1982 to 24 cases in 1983 for a 166 percent increase. The 100 percent increase in

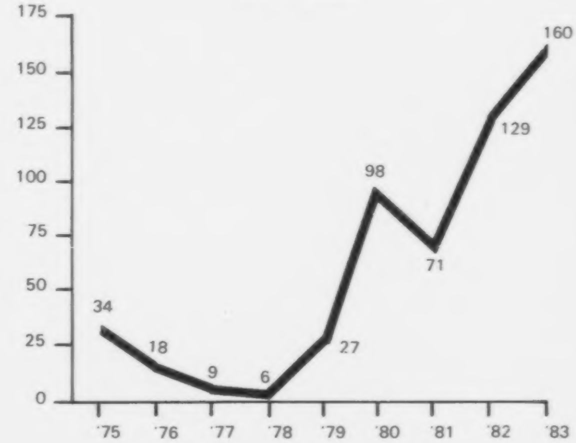
### GRAPH 9-14
### TOTAL SYPHILIS MORBIDITY
### 1973-1983



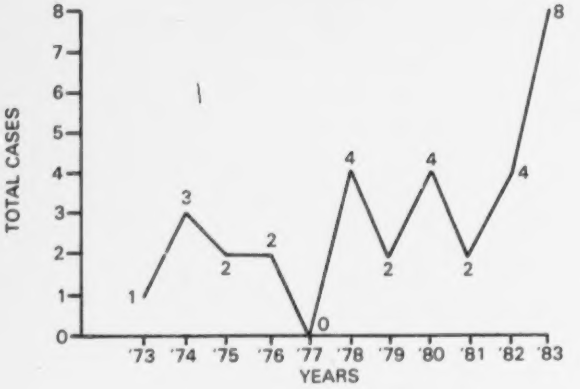
### GRAPH 9-15
### EARLY LATENT SYPHILIS TOTAL MORBIDITY
### 1975-1983



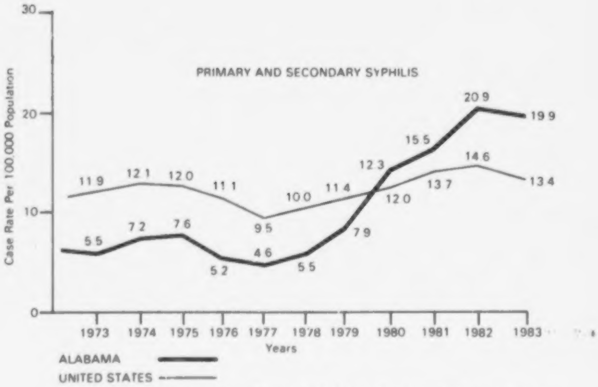
### GRAPH 9-16
### LATE LATENT SYPHILIS TOTAL MORBIDITY
### 1975-1983



### GRAPH 9-17
### CONGENITAL SYPHILLIS
### TOTAL MORBIDITY
### 1973-1983

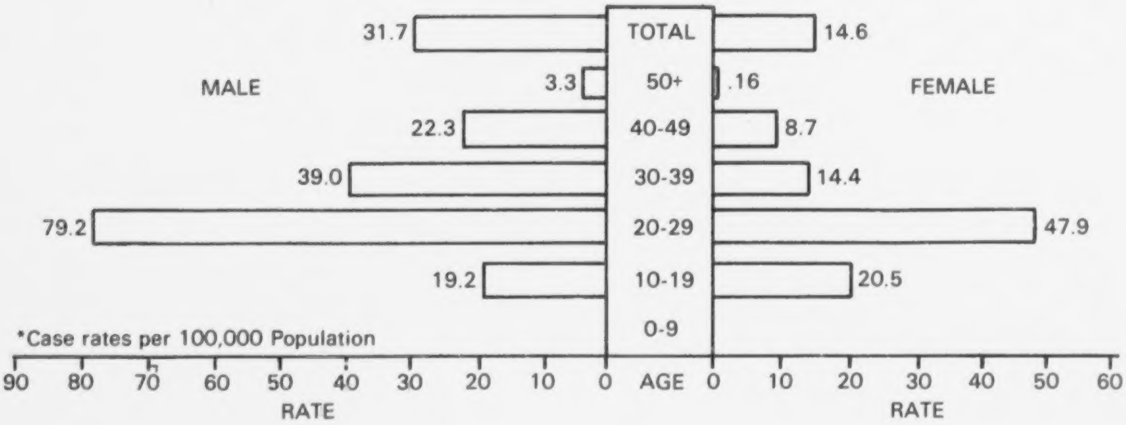


### GRAPH 9-18
### PRIMARY AND SECONDARY SYPHILIS RATES*
### ALABAMA AND UNITED STATES
### 1973-1983



*Graph contains corrections to previous reports due to adjusted population and morbidity totals

### GRAPH 9-19
### PRIMARY AND SECONDARY SYPHILIS
### AGE-SPECIFIC CASE RATES* BY SEX
### 1983



*Case rates per 100,000 Population

Calhoun County resulted from 24 cases in 1983, up from 12 in 1982. Table 9-12 gives the number of cases of syphilis and gonorrhea in each county for 1982 and 1983.

Of great concern is Mobile County which accounted for more than one-fifth of the state's primary and secondary syphilis. In 1983, 171 infectious syphilis cases were reported compared to 92 cases in 1982. Thus the county had an 86 percent increase. Graph 9-20 reports infectious syphilis in Mobile County since 1977.

During 1983 every effort was made to locate and interview all primary, secondary and early latent syphilis cases for sexual contacts. Of the 1,343 reported civilian cases, 99.6 percent were interviewed. These interviews produced 4,041 sexual contacts with 89 percent of them being referred for examination for syphilis. As a result of this epidemiologic process 359 contacts were found to be infected with syphilis and brought to treatment. Table 9-13 breaks down the interviews.

The Alabama Division of Venereal Disease Control participated in an interstate/international network for the exchange of epidemiologic information. During 1983, 509 epidemiologic investigation forms were sent from Alabama to other states while 234 forms were received by Alabama from other states.

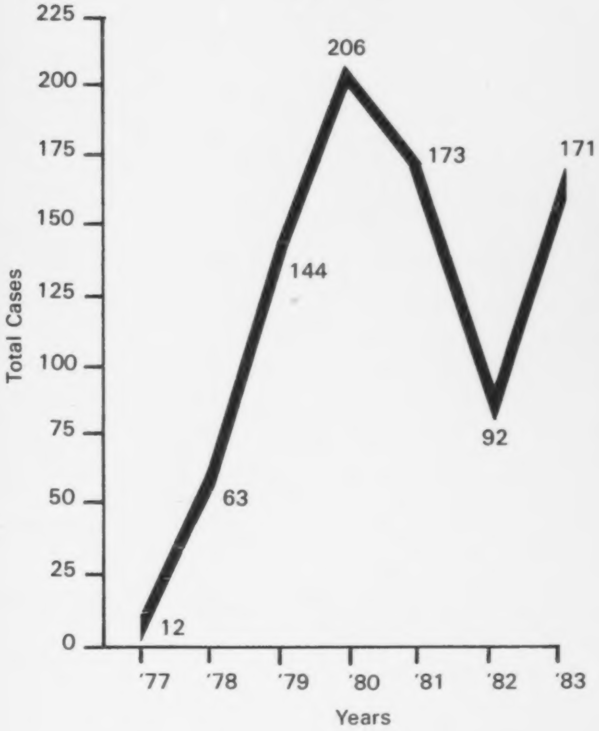
# TABLE 9-12
# VENEREAL DISEASE MORBIDITY (MILITARY EXCLUDED)
# RATE PER 100,000 POPULATION
# 1982 and 1983

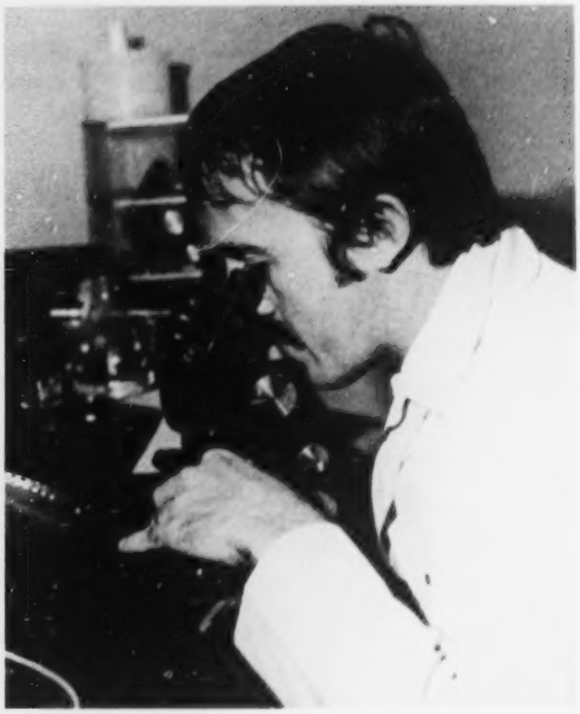
| Entire State | Primary & Secondary Syphilis | | | | Total Syphilis | | Gonorrhea | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | | 1983 | | 1982 | 1983 | 1982 | | 1983 | |
| | Cases | Rate | Cases | Rate | Cases | Rate | Cases | Rate | Cases | Rate |
| **PHA 1** | | | | | | | | | | |
| Colbert | 3 | 5.4 | 5 | 8.8 | 3 | 7 | 234 | 420.7 | 198 | 349.2 |
| Cullman | 1 | 1.6 | 1 | 1.5 | 3 | 3 | 35 | 54.9 | 31 | 47.3 |
| Franklin | 2 | 6.8 | 1 | 3.3 | 2 | 1 | 83 | 282.8 | 55 | 182.7 |
| Jackson | 2 | 3.7 | | | 4 | 2 | 2 | 3.7 | | |
| Lauderdale | 5 | 6.0 | 6 | 7.0 | 6 | 10 | 233 | 279.6 | 187 | 217.2 |
| Lawrence | | | 1 | 3.2 | | 3 | 45 | 146.0 | 41 | 130.2 |
| Limestone | 4 | 8.5 | 9 | 18.7 | 7 | 16 | 100 | 212.9 | 45 | 93.6 |
| Madison | 9 | 4.5 | 24 | 11.5 | 27 | 39 | 1,586 | 795.7 | 1,437 | 688.9 |
| Marion | | | | | | | 30 | 95.4 | 18 | 54.9 |
| Marshall | | | | | | 2 | 30 | 44.0 | 14 | 20.0 |
| Morgan | 11 | 11.8 | 10 | 10.4 | 17 | 13 | 186 | 199.7 | 209 | 218.2 |
| Winston | | | | | | | 10 | 43.2 | 14 | 57.9 |
| TOTAL | 37 | 4.7 | 57 | 7.1 | 69 | 96 | 2,574 | 330.3 | 2,249 | 279.1 |
| **PHA 2** | | | | | | | | | | |
| Bibb | | | | | | | 48 | 297.2 | 18 | 108.4 |
| Fayette | 1 | 5.2 | 1 | 5.0 | 2 | 1 | 24 | 123.8 | 12 | 60.3 |
| Greene | 1 | 9.0 | 1 | 8.9 | 2 | 5 | 128 | 1,152.7 | 79 | 705.4 |
| Hale | | | 1 | 6.4 | 1 | 2 | 113 | 727.1 | 63 | 403.8 |
| Lamar | | | 2 | 11.6 | | 3 | 15 | 88.6 | 4 | 23.1 |
| Pickens | | | 1 | 4.5 | | 1 | 69 | 317.4 | 56 | 254.5 |
| Tuscaloosa | 12 | 8.4 | 22 | 15.1 | 19 | 51 | 1,360 | 955.2 | 1,342 | 923.6 |
| TOTAL | 14 | 5.8 | 28 | 11.3 | 24 | 63 | 1,757 | 722.3 | 1,574 | 634.9 |
| **PHA 3** | | | | | | | | | | |
| Blount | 1 | 2.6 | 3 | 7.5 | 1 | 4 | 19 | 49.2 | 21 | 52.2 |
| Chilton | 3 | 9.5 | 1 | 3.0 | 13 | 3 | 75 | 235.6 | 60 | 182.9 |
| Jefferson | 275 | 40.6 | 216 | 31.3 | 432 | 375 | 6,908 | 1,020.0 | 6,576 | 518.9 |
| St. Clair | 2 | 4.5 | | | 3 | 3 | 26 | 58.8 | 41 | 88.7 |
| Shelby | 2 | 2.8 | 1 | 1.3 | 3 | 7 | 76 | 104.6 | 56 | 74.8 |
| Walker | 2 | 2.8 | 1 | 1.4 | 4 | 2 | 118 | 165.1 | 85 | 115.0 |
| TOTAL | 285 | 30.4 | 222 | 23.2 | 456 | 394 | 7,222 | 771.6 | 6,839 | 715.6 |
| **PHA 4** | | | | | | | | | | |
| Calhoun | 12 | 9.7 | 24 | 19.1 | 26 | 38 | 320 | 259.1 | 489 | 389.0 |
| Chambers | 3 | 7.5 | 6 | 14.9 | 7 | 8 | 57 | 143.1 | 94 | 233.3 |
| Cherokee | | | | | | | 2 | 10.3 | 1 | 5.0 |
| Clay | | | | | 1 | | 39 | 279.7 | 42 | 297.9 |
| Cleburne | | | 1 | 7.6 | 3 | 2 | | | 4 | 30.3 |
| Coosa | | | | | 1 | | 31 | 268.7 | 71 | 606.8 |
| DeKalb | 1 | 1.8 | 1 | 1.7 | 2 | 2 | 40 | 71.1 | 32 | 54.8 |
| Etowah | 2 | 1.9 | 11 | 10.3 | 5 | 25 | 303 | 288.4 | 164 | 153.8 |
| Randolph | 1 | 4.9 | | | 3 | | 23 | 112.4 | 18 | 86.1 |
| Talladega | 3 | 4.0 | 2 | 2.6 | 6 | 11 | 300 | 396.0 | 322 | 416.0 |
| Tallapoosa | | | 2 | 5.0 | 1 | 6 | 42 | 105.6 | 99 | 246.3 |
| TOTAL | 22 | 4.2 | 47 | 8.9 | 55 | 92 | 1,157 | 223.0 | 1,336 | 252.8 |

# TABLE 9-12 (continued)
# VENEREAL DISEASE MORBIDITY (MILITARY EXCLUDED)
# RATE PER 100,000 POPULATION
# 1982 and 1983

| Entire State | Primary & Secondary Syphilis | | | | Total Syphilis | | Gonorrhea | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | | 1983 | | 1982 | 1983 | 1982 | | 1983 | |
| | Cases | Rate | Cases | Rate | Cases | Rate | Cases | Rate | Cases | Rate |
| **PHA 5** | | | | | | | | | | |
| Autauga | 2 | 5.9 | 1 | 2.9 | 8 | 4 | 42 | 123.5 | 51 | 145.7 |
| Barbour | 6 | 23.8 | 9 | 35.2 | 17 | 12 | 100 | 396.0 | 82 | 320.3 |
| Bullock | 3 | 29.1 | | | 6 | 3 | 61 | 591.1 | 99 | 970.6 |
| Butler | 1 | 4.6 | 2 | 9.2 | 2 | 6 | 60 | 277.7 | 33 | 152.0 |
| Coffee | 1 | 2.5 | | | 3 | 1 | 41 | 104.2 | 43 | 106.4 |
| Covington | 4 | 10.7 | | | 7 | 1 | 114 | 304.2 | 194 | 510.5 |
| Crenshaw | | | 6 | 41.4 | | 8 | 35 | 244.5 | 45 | 310.3 |
| Dale | 2 | 4.3 | 7 | 13.8 | 8 | 11 | 60 | 128.6 | 63 | 124.0 |
| Elmore | 1 | 2.2 | 5 | 10.6 | 6 | 8 | 142 | 311.5 | 86 | 183.0 |
| Geneva | | | 2 | 7.9 | | 4 | 10 | 40.4 | 19 | 75.4 |
| Henry | 6 | 38.1 | 3 | 18.6 | 9 | 7 | 32 | 203.0 | 51 | 316.8 |
| Houston | 80 | 101.7 | 27 | 32.5 | 118 | 58 | 525 | 667.1 | 499 | 599.8 |
| Lee | 3 | 3.8 | 3 | 3.7 | 11 | 11 | 198 | 248.5 | 321 | 391.5 |
| Lowndes | 6 | 45.0 | 6 | 44.4 | 11 | 12 | 131 | 982.5 | 147 | 1,088.9 |
| Macon | 9 | 33.0 | 10 | 36.6 | 27 | 21 | 100 | 366.6 | 111 | 406.6 |
| Montgomery | 177 | 86.9 | 124 | 59.1 | 325 | 266 | 3,400 | 1,669.8 | 3,054 | 1,456.4 |
| Pike | 3 | 10.4 | 2 | 6.8 | 7 | 9 | 151 | 525.6 | 159 | 540.8 |
| Russell | 5 | 10.5 | 8 | 16.6 | 10 | 15 | 215 | 449.8 | 179 | 370.6 |
| TOTAL | 309 | 38.9 | 215 | 26.3 | 575 | 457 | 5,417 | 682.0 | 5,236 | 640.2 |
| **PHA 6** | | | | | | | | | | |
| Baldwin | 3 | 3.6 | 12 | 13.9 | 9 | 18 | 210 | 253.4 | 125 | 145.0 |
| Choctaw | | | | | 1 | | 58 | 343.3 | 11 | 64.3 |
| Clarke | 7 | 25.1 | 1 | 3.5 | 10 | 1 | 45 | 161.1 | 52 | 184.4 |
| Conecuh | 1 | 6.3 | 1 | 6.2 | 2 | 1 | 58 | 363.9 | 69 | 425.9 |
| Dallas | 30 | 55.9 | 36 | 63.7 | 55 | 49 | 992 | 1,847.9 | 767 | 1,357.5 |
| Escambia | 16 | 40.8 | 8 | 20.1 | 21 | 16 | 66 | 168.2 | 89 | 223.0 |
| Marengo | 2 | 7.9 | 1 | 3.9 | 3 | 2 | 121 | 477.8 | 27 | 105.1 |
| Mobile | 92 | 24.5 | 171 | 44.7 | 197 | 289 | 4,489 | 1,194.9 | 4,050 | 1,059.7 |
| Monroe | 13 | 56.4 | 5 | 21.4 | 19 | 9 | 58 | 251.6 | 24 | 102.6 |
| Perry | 1 | 6.7 | 2 | 13.4 | 1 | 6 | 80 | 536.0 | 35 | 234.9 |
| Sumter | 1 | 5.9 | 5 | 29.2 | 1 | 12 | 25 | 148.0 | 25 | 146.2 |
| Washington | | | 2 | 11.6 | 2 | 4 | 28 | 165.2 | 4 | 23.3 |
| Wilcox | 2 | 13.9 | 2 | 13.9 | 10 | 2 | 141 | 978.8 | 114 | 791.7 |
| TOTAL | 168 | 22.7 | 246 | 33.3 | 331 | 409 | 6,371 | 880.2 | 5,392 | 729.6 |
| STATE<br>TOTAL | 835 | 20.9 | 815 | 19.9 | 1,510 | 1,511 | 24,498 | 613.2 | 22,626 | 552.7 |

### GRAPH 9-20
### PRIMARY AND SECONDARY SYPHILIS
### MOBILE COUNTY
### 1977-1983





*Charles Crosby, microbiologist, reads a VDRL test.*

### TABLE 9-13
### EPIDEMIOLOGIC RESULTS
### PRIMARY/SECONDARY AND EARLY LATENT SYPHILIS
### 1983

| ORIGINAL INTERVIEW | |
|---|---|
| 1. Number of cases interviewed | 1,319 |
| 2. Number of contacts obtained | 3,299 |
| 3. Contact Index | 2.50 |
| 4. Number treated with active infections | 368 |
| 5. Number preventively treated | 1,796 |
| **REINTERVIEW** | |
| 1. Number of cases reinterviewed | 2,650 |
| 2. Number of contacts obtained | 1,058 |
| 3. Contact Index | 0.40 |
| 4. Number treated with active infections | 78 |
| 5. Number preventively treated | 603 |

A major contributing factor in the reduction and control of syphilis in Alabama is the Reactor Surveillance Registry. The function of the registry is to quickly identify and initiate follow-up action on patients who have reactive serological tests for syphilis and no record of previous treatment for this infection. During 1983, 27,578 reactive serological tests for syphilis were reported to the registry. As a result of follow-up on these reports, 554 persons were brought to treatment for early syphilis. This number compares favorably with the 422 cases identified through this process in 1982 and represents an increase of 31.3 in the number of patients brought to treatment during 1983.

### TABLE 9-14
### LABORATORIES REPORTING REACTIVE STD
### 1980-1983

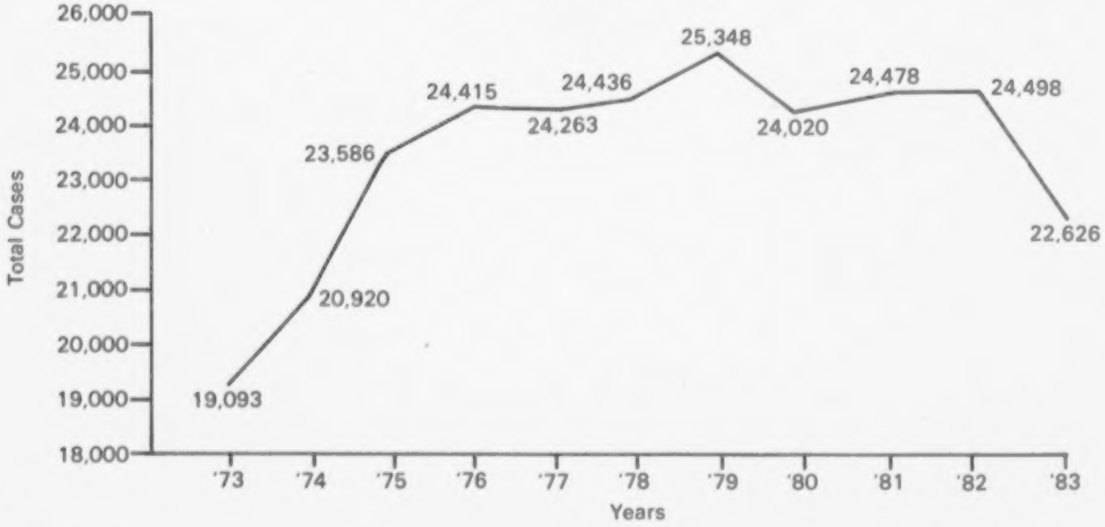
| Year | No. of Laboratories | Percent Reporting |
|---|---|---|
| 1980 | 169 | 75.0 |
| 1981 | 159 | 86.9 |
| 1982 | 159 | 99.0 |
| 1983 | 164 | 99.8 |

### TABLE 9-15
### SYPHILIS REACTOR REGISTRY
### 1982 and 1983

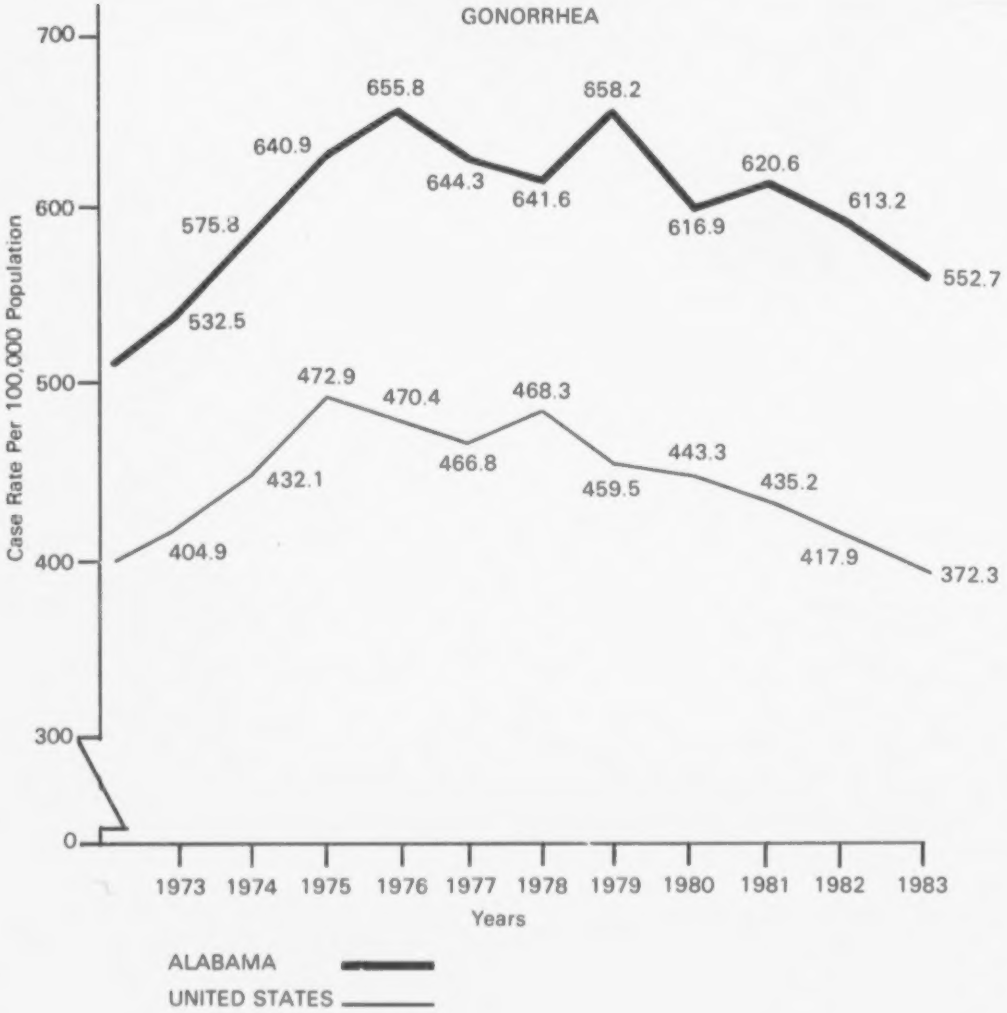
|  | 1982 | 1983 | Percent Change |
|---|---|---|---|
| Total Reactors Reported | 24,908 | 27,578 | +10.7 |
| Total Reactors Followed by Field Staff | 3,590 | 3,926 | + 9.4 |
| Total Brought to Treatment for Syphilis (All Stages) | 576 | 723 | +25.5 |

**Gonorrhea**—Gonorrhea morbidity decreased significantly in Alabama during 1983 with 22,626 civilian gonorrhea cases being reported. This is a decrease of 7.6 percent and represents the lowest number of gonorrhea cases reported in Alabama in a year since 1975. Graph 9-21 permits a comparison of reported gonorrhea from 1973 to 1983, and case rates for the same period are given in Graph 9-22. The number of cases are presented by age group in Graph 9-23 while rates are shown by age and sex in Graph 9-24.

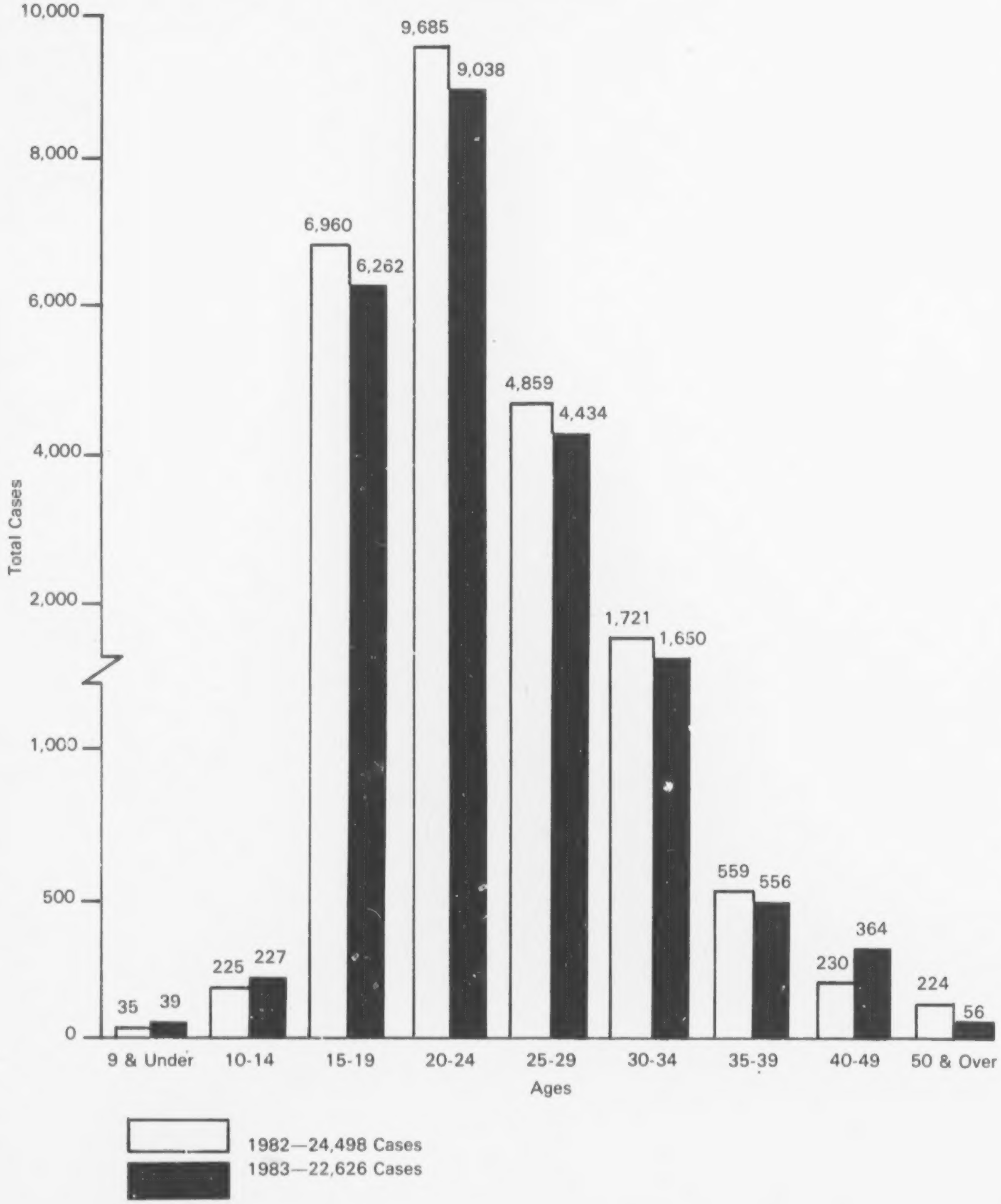
### GRAPH 9-21
### GONORRHEA MORBIDITY
### 1973-1983



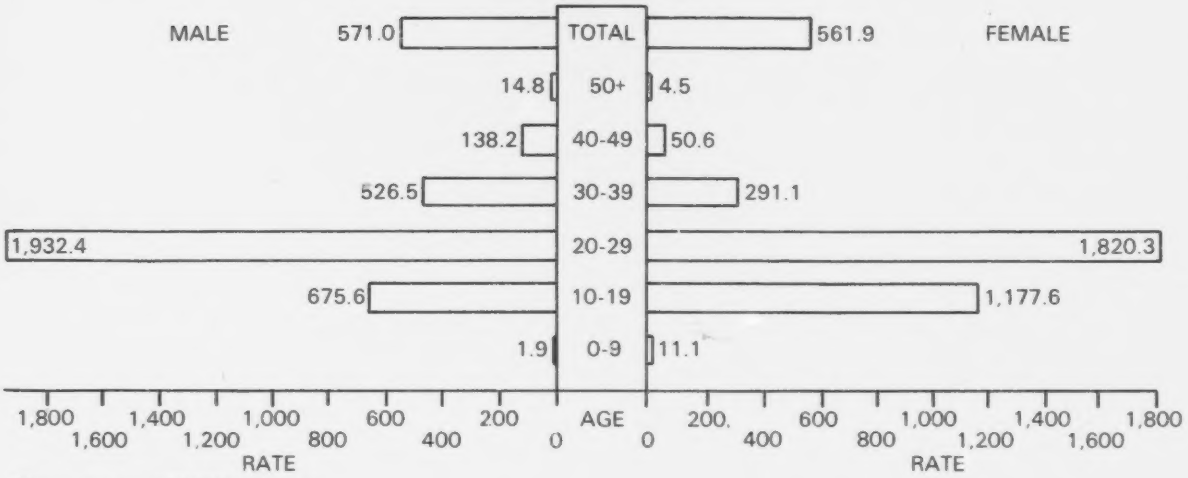
## GRAPH 9-22
## GONORRHEA RATES
## ALABAMA AND THE UNITED STATES
## 1973-1983



## GRAPH 9-23
## GONORRHEA
## TOTAL CASES BY AGE GROUPS
## ALABAMA, 1982-1983



## GRAPH 9-24
## GONORRHEA
## AGE-SPECIFIC CASE RATES* BY SEX
## ALABAMA, 1983



*Case rates per 100,000 population.

Gonorrhea morbidity decreased on reports from both the public and the private sectors in 1983. Morbidity reported from public clinics decreased by 4.8 percent, from 18,697 cases in 1982 to 17,849 cases in 1983. Private physicians reported 5,781 cases in 1982 and 4,777 cases in 1983 for a 16.9 percent decrease. Table 9-16 gives the number of cases of venereal diseases each source reported.

The 80 cases of penicillinase producing *Neisseria*

## TABLE 9-16
## VENEREAL DISEASE MORBIDITY REPORT
## BY REPORTING SOURCES AND SEX
## ALABAMA, 1983

| | | SYPHILIS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SOURCE OF REPORT | SEX | Primary and Secondary | Early Latent | Late and Late Latent | Congenital | Not Stated | GONORRHEA | CHANCROID |
| PRIVATE PHYSICIANS | Male | 131 | 55 | 38 | 4 | 1 | 1,129 | |
| | Female | 104 | 69 | 54 | 3 | | 3,647 | 1 |
| | Total | 235 | 124 | 92 | 7 | 1 | 4,777* | 1 |
| PUBLIC CLINICS | Male | 381 | 251 | 42 | | | 9,880 | |
| | Female | 199 | 153 | 25 | 1 | 0 | 7,966 | |
| | Total | 580 | 404 | 67 | 1 | | 17,849* | |
| ALL SOURCES (Above) | Total | 815 | 528 | 160* | 8 | 1 | 22,626 | 1 |

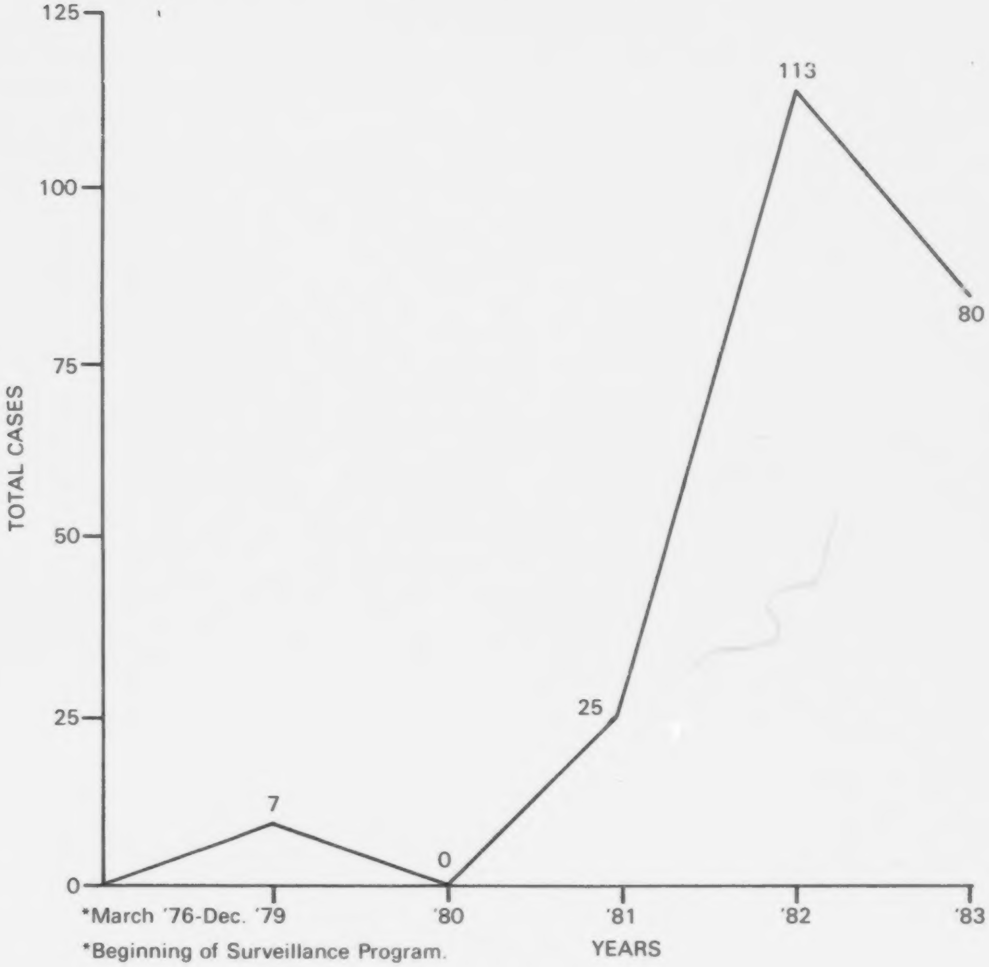
Age of Congenital Syphilis Cases: Less than 1 (6), over 9 (2)

*Total includes cases unspecified by sex and/or source *gonorrhoeae* (PPNG) reported in 1983 is 29 percent fewer than the 113 cases of 1982. With the exception of Mobile County, this downward trend was very encouraging. An outbreak of PPNG in Mobile County during the last quarter of 1983 is of great concern. Fifty-seven cases of PPNG were reported, representing a 50 percent increase over 1982. Table 9-17 compares 1982 and 1983 reports by public health area. Graph 9-25 pictures the dramatic change in reported PPNG.

### TABLE 9-17
### REPORTED PPNG BY PHA
### 1982 and 1983

| | 1982 | 1983 | Percent Change |
|---|---|---|---|
| PHA I | 8 | 2 | -75.0 |
| PHA II | 28 | 0 | -100.0 |
| PHA III | 21 | 9 | -57.1 |
| PHA IV | 0 | 1 | +100.1 |
| PHA V | 11 | 10 | -9.1 |
| PHA VI | 45 | 58 | +28.9 |
| Total | 113 | 80 | -29.2 |

### GRAPH 9-25
### PENICILLINASE-PRODUCING NEISSERIA GONORRHOEAE (PPNG) MORBIDITY
### ALABAMA, 1976-1983



*Beginning of Surveillance Program.

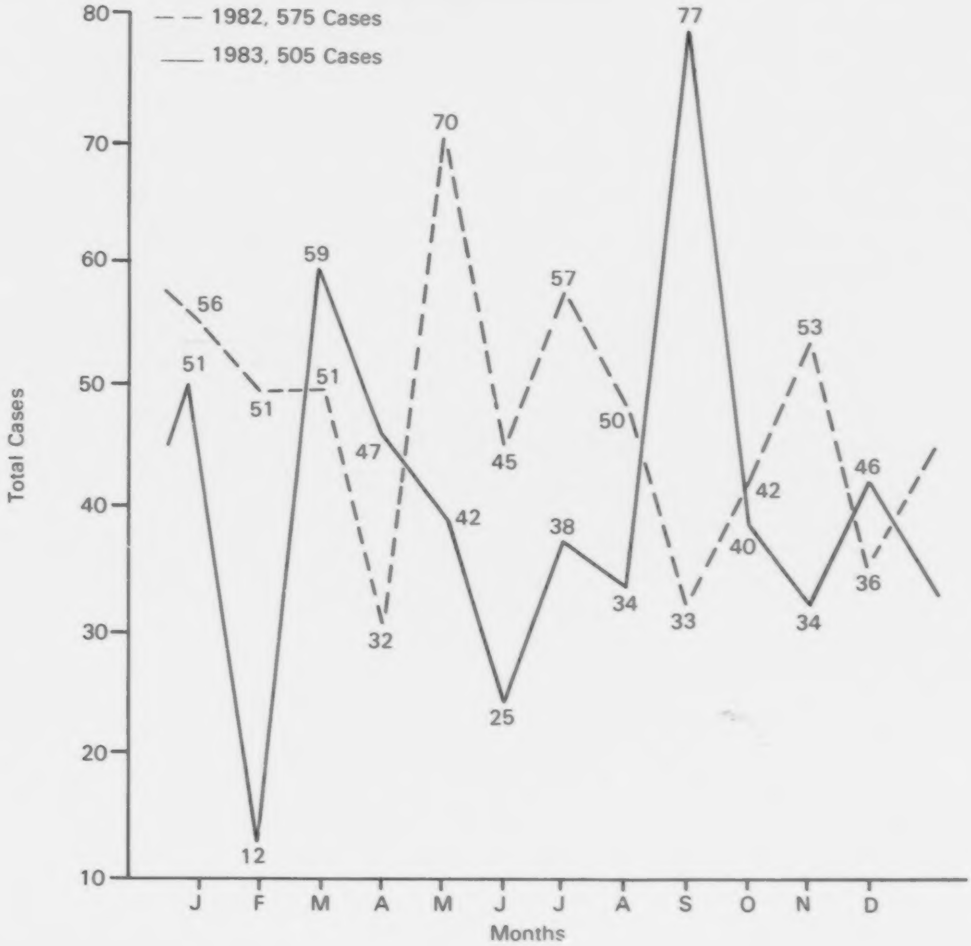
Reported incidence of gonococcal pelvic inflammatory disease (GPID) continued to decrease—from 575 cases in 1982 to 503 cases in 1983 for a 12.5 percent decline. A comparison of monthly reports of GPID for the two years shows no consistency as Graph 9-26 reveals.

During calendar year 1983 the epidemiological follow-up of priority gonorrhea patients continued to be an important element of the Alabama Venereal Disease Control Program. Table 9-18 summarizes epidemiological efforts. Foremost in importance was PPNG epidemiology with GPID, male and female repeat infections and asymptomatic males following. Contact interviews of 79 PPNG cases yielded a total of 184 sexual contacts. Twenty-four of these contacts were found to be infected and were treated for gonococcal infection.

The 435 GPID patients interviewed for sex partners during 1983 yielded a total of 506 contacts. About one-fourth of those examined contacts were found to be infected and were brought to treatment for gonorrhea.

Epidemiology applied to male and female repeaters (patients reinfected within six months) yielded similar results. During 1983, 940 repeat male and 225 repeat female infected patients were interviewed for sex contacts. Male repeater interviews yielded 889 contacts. Examination of these contacts produced 310 female gonococcal infections. Female repeater interviews yielded 254 contacts. Nearly 84 percent of these contacts were examined. A total of 85 male contacts were found to be infected with gonorrhea and were brought to treatment for their infection.

### GRAPH 9-26
### GONOCOCCAL PELVIC INFLAMMATORY DISEASE (GPID) MONTHLY MORBIDITY (MILITARY INCLUDED) ALABAMA, 1982-1983



## TABLE 9-18
## GONORRHEA
## EPIDEMIOLOGIC RESULTS
## ALABAMA, 1983

| INTERVIEWING RESULTS | FIRST-TIME INFECTIONS | | REPEATERS | | GPID | PPNG |
|---|---|---|---|---|---|---|
| | MALE | FEMALE | MALE | FEMALE | | |
| 1. Number of Patients Interviewed | 230 | 292 | 940 | 225 | 435 | 79 |
| 2. Total Contacts Obtained | 273 | 317 | 889 | 254 | 506 | 184 |
| 3. Contact Index | 1.18 | 1.08 | 0.95 | 1.13 | 1.16 | 2.33 |
| 4. Number of Contacts Investigated Out-of State | 4 | 6 | 3 | 3 | 25 | 3 |
| 5. Number of New Contacts Investigated In-State | 212 | 246 | 795 | 210 | 416 | 145 |
| 6. Number of Contacts Treated | 73 | 82 | 310 | 85 | 116 | 30 |

The Gonorrhea Screening Program provided Alabama patients with a simple and accurate means of gonorrhea detection. During 1983, 242,679 gonorrhea cultures were tested on females throughout the state. Through this screening effort 10,128 gonococcal infections were identified. Table 9-19 gives a complete screening report.

Table 9-20 identifies venereal diseases by public health areas.

**Information and Education**—Continuing to realize the importance of education in controlling venereal disease, the Information and Education Program complemented and supported other VD control measures. It was directed toward meeting program needs and addressing issues that further the VD intervention process.

During 1983 all public clinic patients received VD education through educational counseling or conditional contract interview sessions. Further efforts were made to promote VD education through the distribution of pamphlets and posters throughout the county health departments. Graph 9-27 shows the number of patients reached for four years.

In order to intensify the awareness of providers engaged in the control and prevention of venereal diseases, fifteen workshops were conducted in thirteen locations across the state. Nurses from all 67 county health departments attended these six-hour workshops. Participants included general nurses as well as those specialized in home health care, WIC, MCH/FP, school health, TB and their supervisors. These 344 nurses were presented information concerning the clinical, diagnostic, control and prevention aspects of gonorrhea, including GPID and PPNG, syphilis, genital herpes and acquired immune deficiency syndrome.

Through in-service or educational coordinators and the infectious disease control nurses of various hospitals across the state, workshops were conducted for emergency room personnel, general nursing staff, technicians and support services individuals.

In efforts to prepare clinical support staff to provide counseling and epidemiologic services to gonorrhea, GPID, and repeater patients, an "STD Workshop in Epidemiologic Forms and Procedures" was developed and conducted in Public Health Area V. For the first time in Alabama, public health nurses were trained in the techniques of educational counseling, conditional contract method of interviewing and the completion of all epidemiologic forms concerning these events.

To assist health educators, sexually transmitted disease coordinators, nurses and others engaged in VD information/education programs, a statewide "STD Education Workshop in Classroom and Community Education" was conducted. The workshop demonstrated materials and methods of presentation to elementary, junior high, high school and post secondary students as well as the community at large. Patient education techniques were also demonstrated.

To reawaken the public to the seriousness of venereal disease, numerous activities were conducted. Some of these were classroom presentations in public schools across the state; participation in health fairs, teacher workshops and university lecture series; public service announcements; and news releases.

## TABLE 9-19
## GONORRHEA CULTURE TEST RESULTS OF FEMALES
## NUMBER TESTED AND NUMBER POSITIVE BY SOURCE OF TEST
## (TYPE OF FACILITY/HEALTH PROVIDER)
## (EXCLUDE TESTS OF CURE)

**PROJECT AREA** Alabama

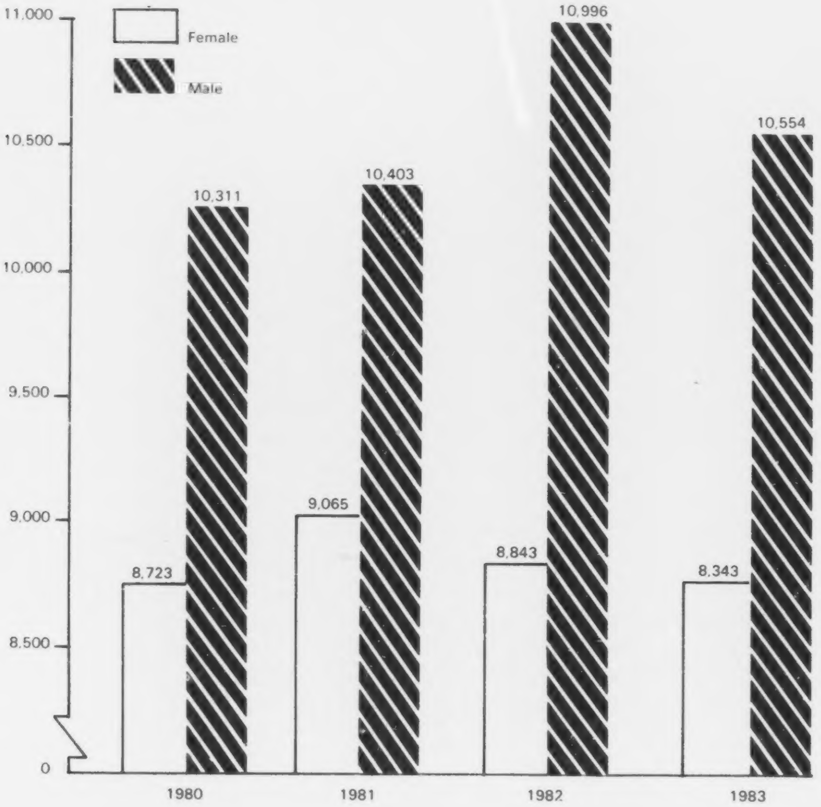
**PERIOD COVERED:** From Jan. 1, 1983 To Dec. 31, 1983

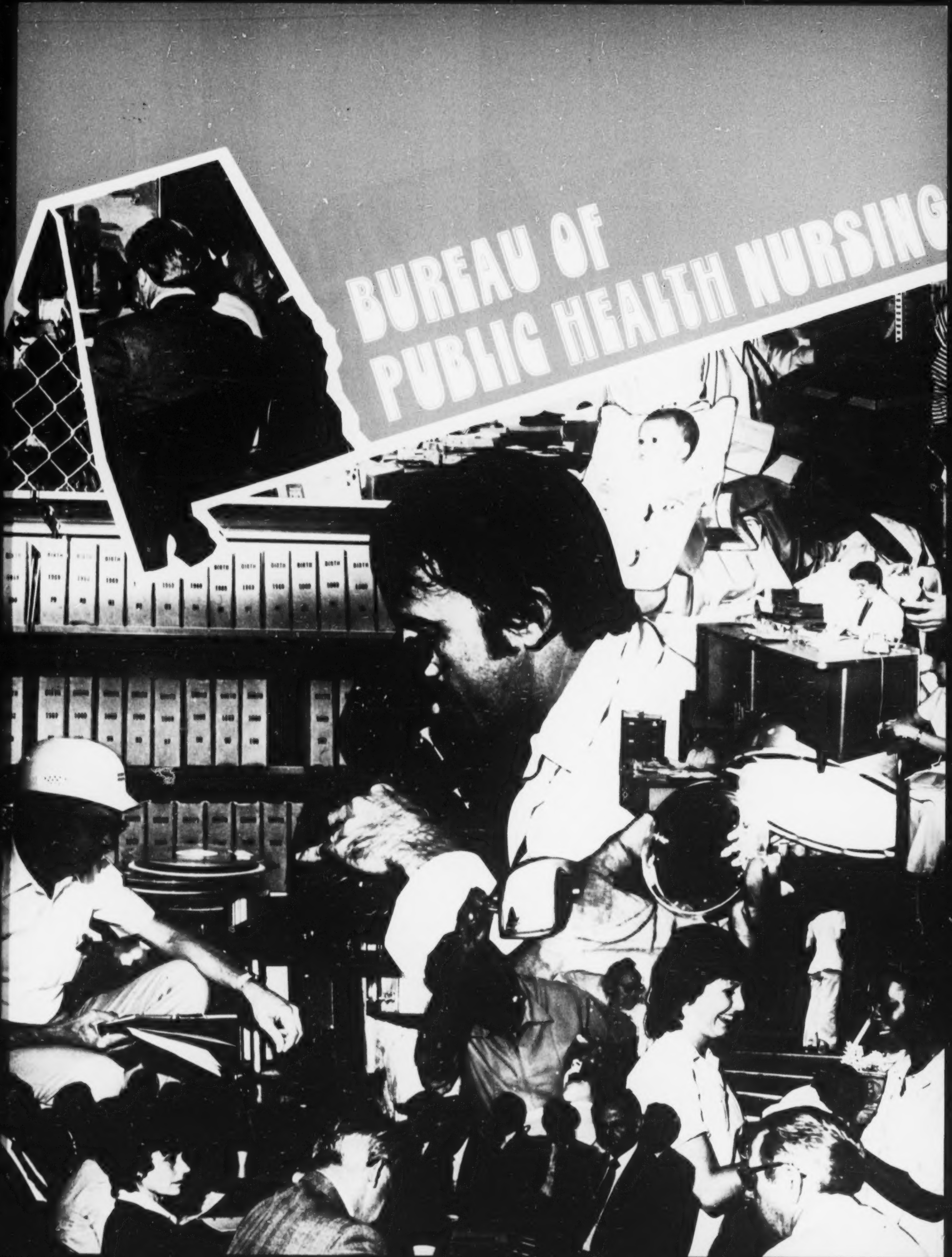
| SOURCE OF TEST (TYPE FACILITY) | Number Tested | Number Negative | Number Positive |
|---|---|---|---|
| 1. Health Dept. Non VD Clinics | ( 90,571 ) | ( 87,260 ) | ( 3,311 ) |
| (a) Family Planning | 70,610 | 67,858 | 2,752 |
| (b) Prenatal, OB-GYN | 18,897 | 18,359 | 538 |
| (c) Cancer Detection | 1 | 1 | 0 |
| (d) Combinations or Other | 1,063 | 1,042 | 21 |
| 2. Public/Private Hospital-Outpatient | ( 14,352 ) | ( 13,574 ) | ( 778 ) |
| (a) Family Planning | | | |
| (b) Prenatal, OB-GYN | 2,774 | 2,694 | 80 |
| (c) Cancer Detection | | | |
| (d) Combinations or Other | 11,578 | 10,880 | 698 |
| 3. Public/Private Hospital-Inpatient | ( ) | ( ) | ( ) |
| (a) Obstetric | | | |
| (b) Gynecologic | | | |
| (c) Combinations or Other | | | |
| 4. Community/Neighborhood Health Centers | ( 3,014 ) | ( 2,782 ) | ( 232 ) |
| (a) Family Planning | | | |
| (b) Prenatal, OB-GYN | | | |
| (c) Cancer Detection | | | |
| (d) Combinations or Other | 3,014 | 2,782 | 232 |
| 5. Private Physicians | 95,023 | 93,285 | 1,738 |
| 6. Private Family Planning Groups | 20,458 | 20,098 | 360 |
| 7. Group Health Clinics | | | |
| 8. Student Health Centers | 5,297 | 5,164 | 133 |
| 9. Manpower Training Agencies | | | |
| 10. Industrial Screening | | | |
| 11. Military/Dependents | | | |
| 12. Correction or Detention Centers | 376 | 351 | 25 |
| 13. Not Specified | | | |
| 14. TOTAL NON-VD CLINICS | ( 229,091 ) | ( 222,514 ) | ( 6,577 ) |
| 15. Venereal Disease Clinics | ( 13,588 ) | ( 10,037 ) | ( 3,551 ) |
| (a) Contacts to Gonorrhea | | | |
| (b) Syphilis: Contacts/Clusters/Reactors | | | |
| (c) Other | | | |
| 16. GRAND TOTAL | 242,679 | 232,551 | 10,128 |
| 17. Number Females With Positive Culture Treated For Gonorrhea: | ▨ | ▨ | 9,976 |

## TABLE 9-20
## VENEREAL DISEASE MORBIDITY REPORT BY PUBLIC HEALTH AREAS ALABAMA, 1983

| | SYPHILIS | | | | | GONORRHEA | | | OTHER | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | PRIMARY | SECONDARY | EARLY LATENT | LATE LATENT | CONGENITAL | | PID | PPNG | CHANCROID | LGV | |
| PHA-1 | 25 | 32 | 28 | 11 | 0 | 2,225 | 22 | 2 | 0 | 0 | 2,345 |
| PHA-2 | 12 | 16 | 31 | 4 | 0 | 1,479 | 95 | 0 | 0 | 0 | 1,637 |
| PHA-3 | 105 | 117 | 138 | 34 | 0 | 6,609 | 222 | 8 | 0 | 0 | 7,233 |
| PHA-4 | 19 | 28 | 24 | 18 | 3 | 1,310 | 24 | 2 | 0 | 0 | 1,428 |
| PHA-5 | 84 | 131 | 187 | 52 | 3 | 5,147 | 79 | 10 | 1 | 0 | 5,694 |
| PHA-6 | 116 | 130 | 120 | 41 | 2 | 5,273 | 61 | 58 | 0 | 0 | 5,801 |
| TOTAL | 361 | 454 | 528 | 160 | 8 | 22,043 | 503 | 80 | 1 | 0 | 24,138 |

## GRAPH 9-27
## PATIENTS RECEIVING EDUCATIONAL COUNSELING ALL DISEASES ALABAMA, 1980-1983



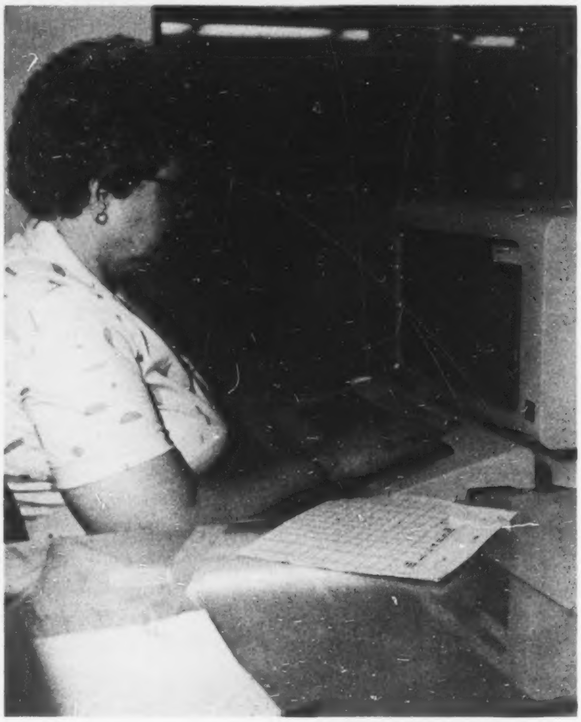


# BUREAU OF
# PUBLIC HEALTH NURSING

# BUREAU OF PUBLIC HEALTH NURSING

Nursing in 1983 was well described by one of the public health area nursing directors in the following statement: "While 1983 was an action-packed year, a solid structure has emerged with improved employee morale and job performances." The scope of public health nursing is broadening due to advances in technology and the need to meet service demands. Changes occur almost before procedures can be researched and circulated. A tightening of Alabama Board of Nursing requirements is bringing about changes in the approach necessary for expanding the performance skills of all public health nurses.

There continues to be a need for employing the nurse who has completed the four-year or baccalaureate degree program since she has the background preparation for preventive health and public health nursing. In many instances salaries have not been competitive with hospitals or other agencies in the area; so the lesser prepared nurse is the only one available. Including both Jefferson and Mobile counties 25 percent of statewide nursing personnel have baccalaureate or advanced degrees. Jefferson County has 55 percent and Mobile has 27 percent of their staffs with degrees. In the remainder of the state only 20 percent of the public health nurses have degrees. However this is an improvement over last year of about 4 percent.



*Oretha Shaw, data entry operator, keys in field vouchers.*

More supervisory positions being filled is progress in achieving one major objective. One of the most important tools of quality assurance is active, viable supervision at the local level.

The bureau continues to work with the university schools of nursing and the local health departments to provide clinical experiences for public health nursing. Since Alabama has 14 baccalaureate programs, there must be excellent cooperation and coordination to provide even minimum public health nursing experience for the students.

For the first time the bureau was able to facilitate a contract between Russell County Health Department and Troy State University School of Nursing. This contract provides for a nursing instructor to work one day a week in the Health Department. This helps the instructor to maintain performance skills and allows the county to provide additional nursing services.

During 1983 a total of 435 nurses including 28 nurse practitioners was employed by the Department of Public Health. In addition, 93 were employed by Jefferson County and 33 by Mobile County for a grand total of 561 nurses providing public health nursing services throughout the state.

## Division of Home Health Services

Personnel of the Division of Home Health Services and its subunits have been involved in many varied home health activities during fiscal year 1983.

Early in the year it was learned that money would be available under the Jobs Bill ("Emergency Expenditures to Meet National Needs Act of 1983"—Public Law 98-8, Section 339) for expanding home health services in areas which do not have adequate medical care. Seven county health departments submitted grant applications. Five were approved and funded; one was approved but not funded; and one was disapproved. Grants received by county health departments totaled $292,923. Conecuh County received the largest amount, $91,617; Walker County was awarded $51,306; Geneva, Randolph and Talladega counties each received $50,000. Awards of these grants were made late in fiscal year 1983; so county programs will become operational in early fiscal year 1984. In the past, programs which expanded during the grant period continued to expand long after the grant ended.

Also, in this same Jobs Bill, funds were made available to Community Health Centers (Rural Health Initiatives) for aide services. Many of the Community Health Centers contracted for these aide services to be provided through the county health departments' Home Health Program. Aides were employed by the Community Health Centers but were based in the local health departments. Public health nurses provided training, supervision, direction and assignment to patients. Criteria for utilizing these aides include extending service to the indigent and unemployed population as well as increasing service to medically underserved areas. Through this cooperative effort eight Jobs Bill aides have been placed in four county or district health departments to enhance the overall Home Health Program.

The proposed elimination of the Office of Direct Reimbursement (ODR), Health Care Financing Administration (HCFA), continued to be of great concern during this year. HCFA's original plan to transfer all direct reimbursement to regional intermediaries, namely Blue Cross-Blue Shield of Alabama for this state, during 1982 did not materialize because home care associations and providers instituted litigations to prevent the phasing out of ODR. During 1983 measures to retain ODR were escalated with providers and associations making state congressional delegations aware of the HCFA proposed elimination of ODR. On September 14, 1983, the Subcommittee on Health, Committee on Ways and Means, U.S. House of Representatives, held a hearing in Washington, D.C., on HCFA's proposed elimination of ODR. The director, Bureau of Public Health Nursing, Alabama Department of Public Health, presented testimony to the subcommittee in support of retaining ODR. The testimony included statements on the efficiency and effectiveness of ODR, experimental studies and baseline data collection procedures of ODR, consistency, vested interests of insurance carriers, and the necessity for checks and balances within the reimbursement system. No further information has been received on any target date for the phasing out of ODR. It is hoped that ODR will be retained and the Division of Home Health Services will be allowed to continue dealing directly with Health Care Financing Administration through the Office of Direct Reimbursement.

In April 1983 the division was notified by the Division of Provider Reimbursement, Health Care Financing Administration, that the Alabama agency was to be audited for fiscal year 1982 by an independent audit firm. In June a Birmingham firm began the audit of the operations. The audit was not completed until late in September. Some recommendations made by the auditors at their exit conference were:

1. Revisions of the monthly report for patient fees.
2. Changes within the computer system for capturing and identifying home health data.
3. A procedure for verifying the accuracy of data submitted, compiled and generated on the Monthly Activity Report (A-3).

Action has already been taken on these recommendations. As a result of the auditors' findings, an additional financial settlement will be forthcoming to the division and its subunits for services rendered during 1982.

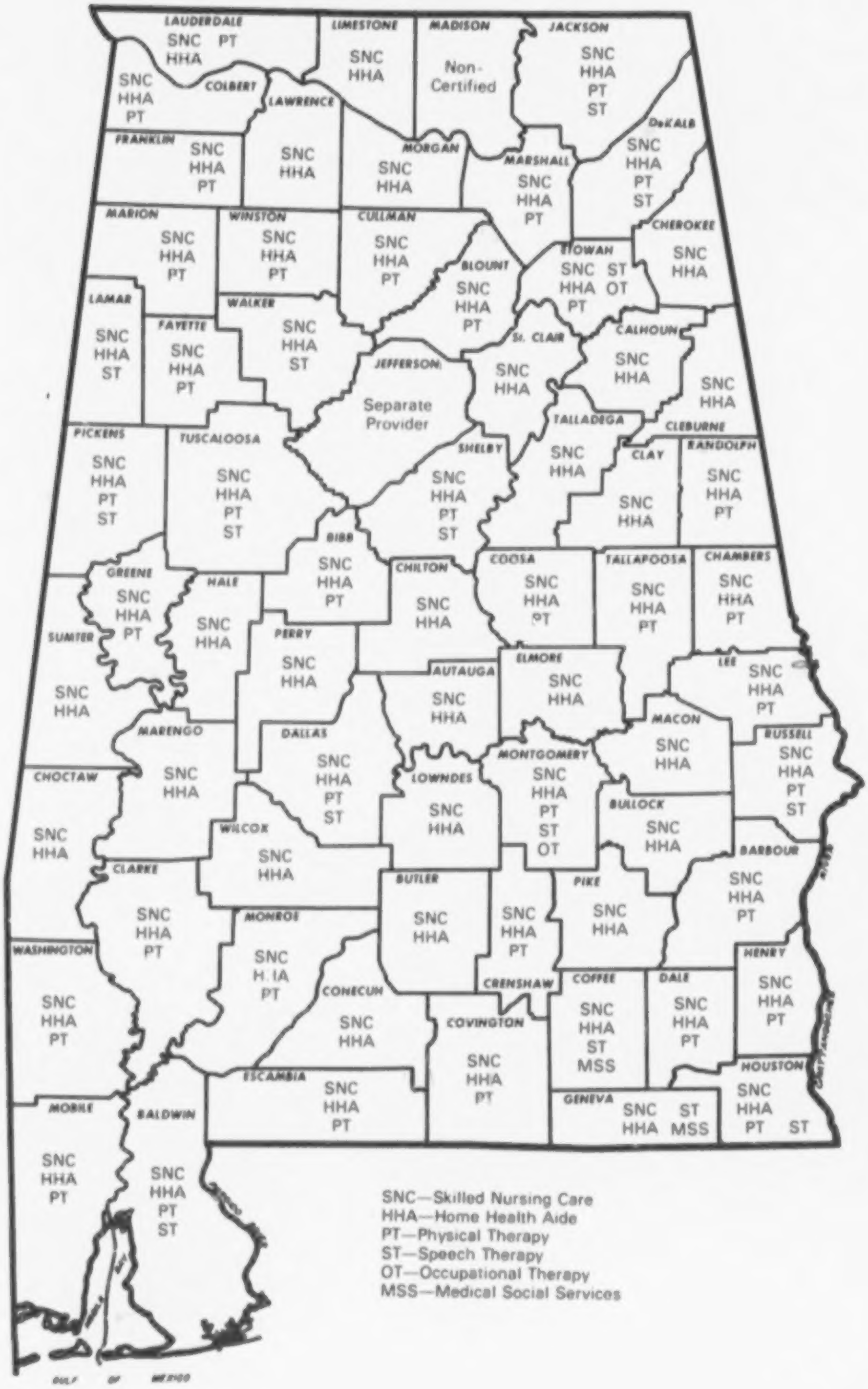
*Jeanette Free plans slide illustrations to accompany training programs.*

Based upon the final audit report, negotiations are presently underway with HCFA's Division of Provider Reimbursement to increase the amount of Alabama's interim reimbursement rate for each visit. Until a new rate is negotiated, the rate will remain at $28.

This agency and the Department of Pensions and Security agreed for local health department nursing staffs to train homemakers employed by the Department of Pensions and Security. This additional training will prepare the homemakers to provide eligible persons services other than just chores. Five four-hour sessions of training will be given at 34 sites. The training programs will begin in early 1984 and will be completed within six months. The additional services provided by the Department of Pensions and Security to eligible recipients will be an added resource for home health agencies.

During fiscal year 1983 subunits endeavored to expand the home care services offered throughout the state. With the expansion of private nonprofit and proprietary home health services, competition for home health patients remained keen. Subunits have intensified their public relations and marketing programs to make medical and lay communities cognizant of services offered by local health departments. In addition to total community awareness of home health, emphasis was placed on increasing the disciplines of services offered. Chart 10-1 indicates the services available in each county.

# CHART 10-1
# HOME HEALTH SERVICES AVAILABLE
# HOME HEALTH AGENCY SUBUNITS
# COUNTY HEALTH DEPARTMENTS
# FISCAL YEAR 1983


LAUDERDALE SNC PT HHA
LIMESTONE SNC HHA
MADISON Non-Certified
JACKSON SNC HHA PT ST
COLBERT SNC HHA PT
LAWRENCE SNC HHA
FRANKLIN SNC HHA PT
MORGAN SNC HHA
MARSHALL SNC HHA PT
DeKALB SNC HHA PT ST
MARION SNC HHA PT
WINSTON SNC HHA PT
CULLMAN SNC HHA PT
BLOUNT SNC HHA PT
ETOWAH SNC ST HHA OT PT
CHEROKEE SNC HHA
LAMAR SNC HHA ST
FAYETTE SNC HHA PT
WALKER SNC HHA ST
JEFFERSON Separate Provider
ST. CLAIR SNC HHA
CALHOUN SNC HHA
CLEBURNE SNC HHA
PICKENS SNC HHA PT ST
TUSCALOOSA SNC HHA PT ST
SHELBY SNC HHA PT ST
TALLADEGA SNC HHA
CLAY SNC HHA
RANDOLPH SNC HHA PT
GREENE SNC HHA PT
HALE SNC HHA
BIBB SNC HHA PT
CHILTON SNC HHA
COOSA SNC HHA PT
TALLAPOOSA SNC HHA PT
CHAMBERS SNC HHA PT
SUMTER SNC HHA
PERRY SNC HHA
AUTAUGA SNC HHA
ELMORE SNC HHA
LEE SNC HHA PT
MARENGO SNC HHA
DALLAS SNC HHA PT ST
MACON SNC HHA
RUSSELL SNC HHA PT ST
CHOCTAW SNC HHA
WILCOX SNC HHA
LOWNDES SNC HHA
MONTGOMERY SNC HHA PT ST OT
BULLOCK SNC HHA
CLARKE SNC HHA PT
BUTLER SNC HHA
CRENSHAW SNC HHA PT
PIKE SNC HHA
BARBOUR SNC HHA PT
WASHINGTON SNC HHA PT
MONROE SNC HHA PT
CONECUH SNC HHA
COVINGTON SNC HHA PT
COFFEE SNC HHA ST MSS
DALE SNC HHA PT
HENRY SNC HHA PT
ESCAMBIA SNC HHA PT
GENEVA SNC ST HHA MSS
HOUSTON SNC HHA PT ST
MOBILE SNC HHA PT
BALDWIN SNC HHA PT ST
GULF OF MEXICO
SNC—Skilled Nursing Care
HHA—Home Health Aide
PT—Physical Therapy
ST—Speech Therapy
OT—Occupational Therapy
MSS—Medical Social Services

*Jean Cawelti, physical therapist, demonstrates techniques she uses with home health care patients in Randolph County. Shelby Green and Girleaner Wright watch.*

The division continues to have 58 subunits providing skilled nursing and home health aide services. With 42 contractual agreements, 44 subunits provided physical therapy—an increase of six subunits providing physical therapy. Sixteen subunits used contracts to provide speech therapy—an increase of three subunits providing this service. Occupational therapy continued to be offered in only two subunits. In 1983 two medical social workers agreed to provide services in three subunits. This is the first time in a number of years that medical social services have been available in any of the subunits. One subunit also negotiated an agreement to provide respiratory therapy. Even though respiratory therapy is not reimbursable on a per visit basis, the subunit personnel believed this service would enhance their overall program.

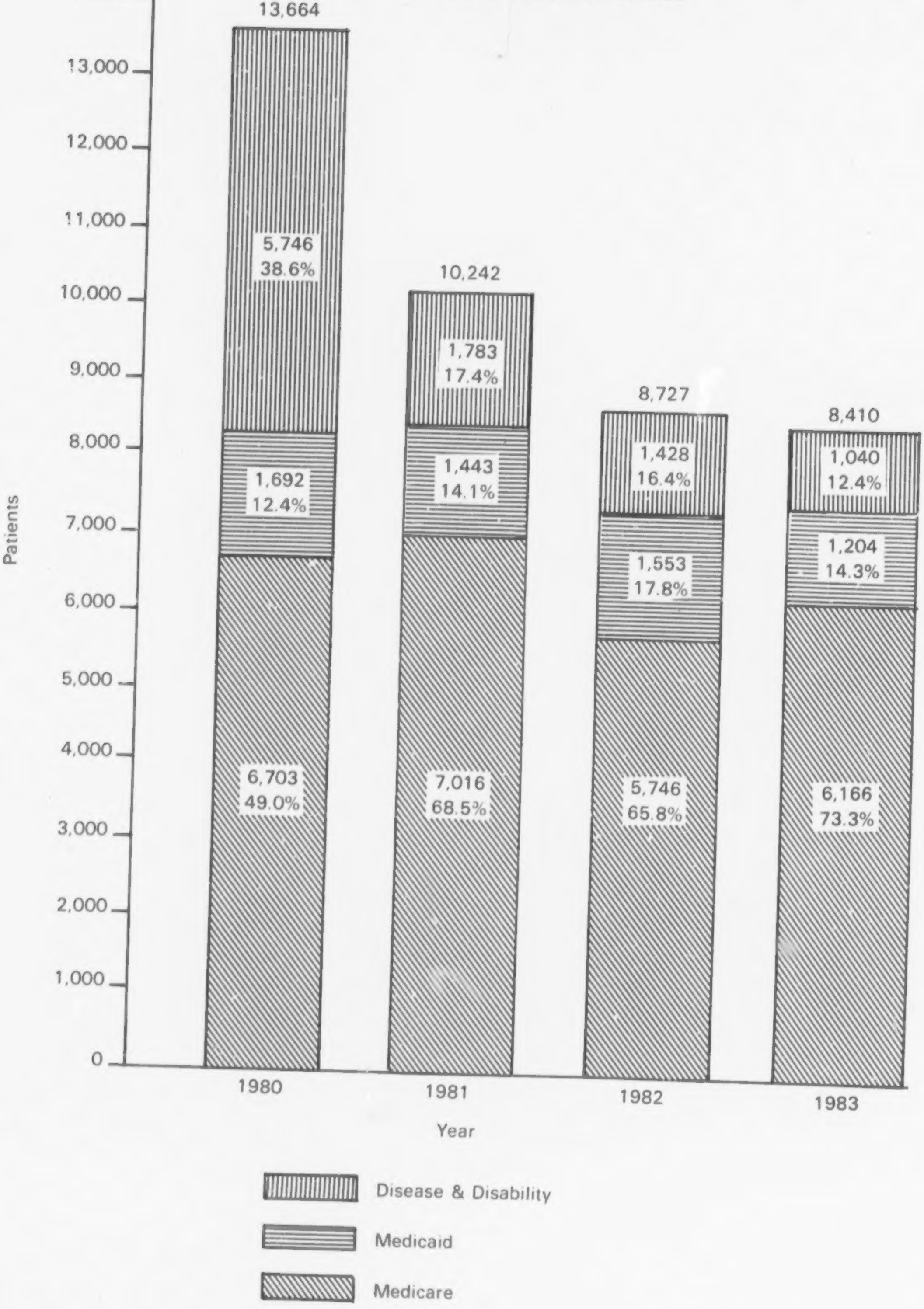
Pilot programs were implemented in 1983 to utilize physical therapy assistants in the program. Houston County was the first with Blount, Etowah, Calhoun and Cleburne counties coming into the program later. At this time the therapy assistant's pilot programs are operating quite well and are making more physical therapy services available in the subunits. As the program progresses, other subunits will be phased into the program.

The 6,166 Medicare patients served in the Home Health Program in fiscal year 1983 are 7.3 percent more than in the previous year. Visits to these patients totaled 131,540 for a 15.4 percent increase. The Medicaid and the Disease and Disability programs declined in patients and visits. The 41,719 visits to 1,204 Medicaid patients represent a decrease of 15.8 percent and 22.5 percent respectively. The Disease and Disability Program served 1,040 patients (27.2 percent fewer than in 1982) by making 25,216 visits (a 22.4 percent decline). Physicians continue to order services which are not reimbursable under Medicare and Medicaid. County funds are used for subunit personnel to make these visits, and the services are attributed to the Disease and Disability Program. In the Home Health Program visits (198,475) increased slightly even though the number of patients (8,410) decreased 3.6 percent. Graphs 10-1 and 10-2 illustrate changes which have occurred in all programs during the past four years.

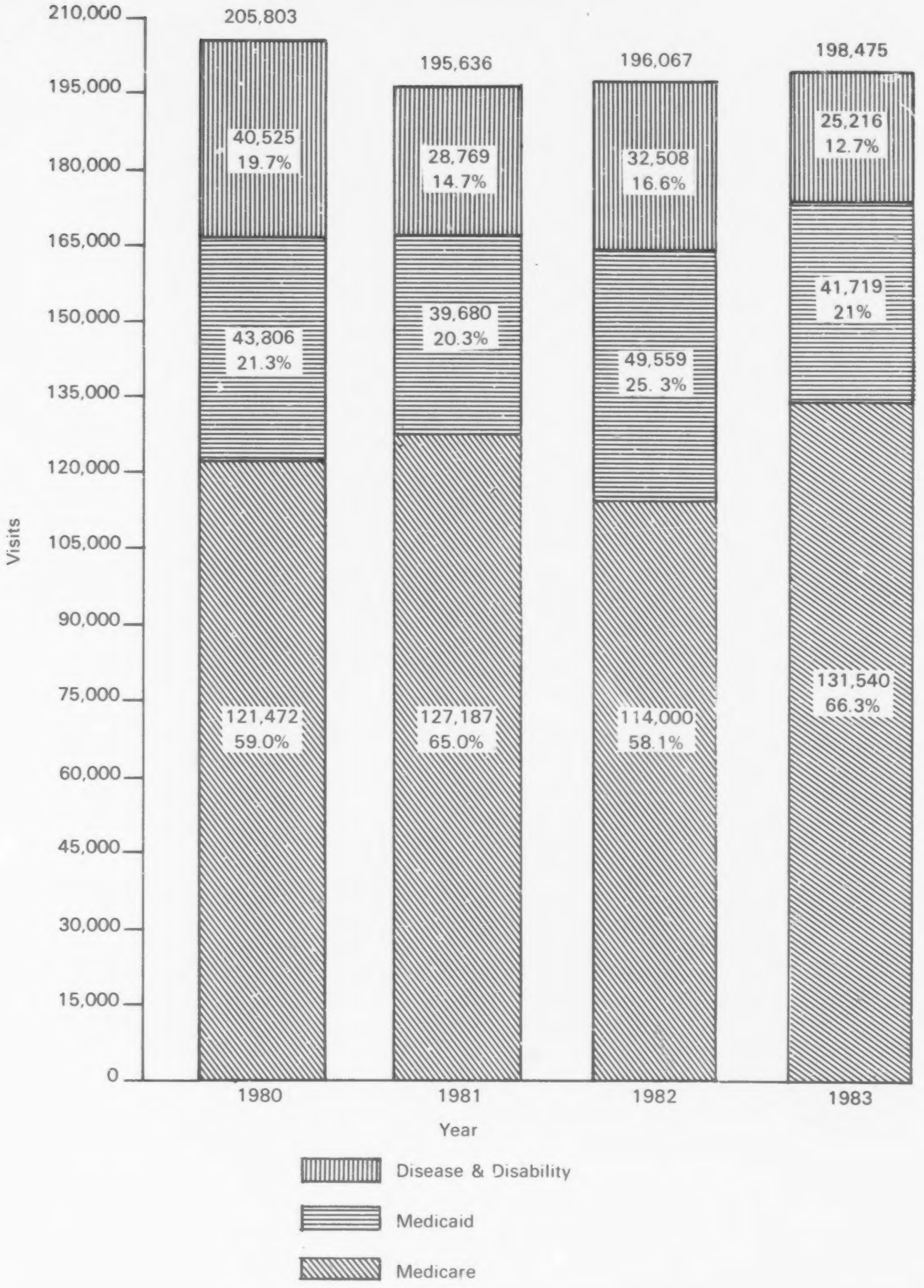
Patients being referred for service are more acutely ill and require more intensive and varied care than in years past. In the future home health may serve more patients who need this type of care since hospitals and other institutions may be discharging patients earlier. The new prospective payment system and the diagnosis related groups which HCFA implemented for hospitals October 1, 1983, could have a decided impact on increasing home health referrals in the future.

Chart 10-2 indicates those counties participating in the sliding fee for service program. Subunits are gradually coming into the program. Emphasis continued to be placed on the program and long-range plans are for all subunits to participate. Medically indigent patients will continue to be served at no charge to the patient.

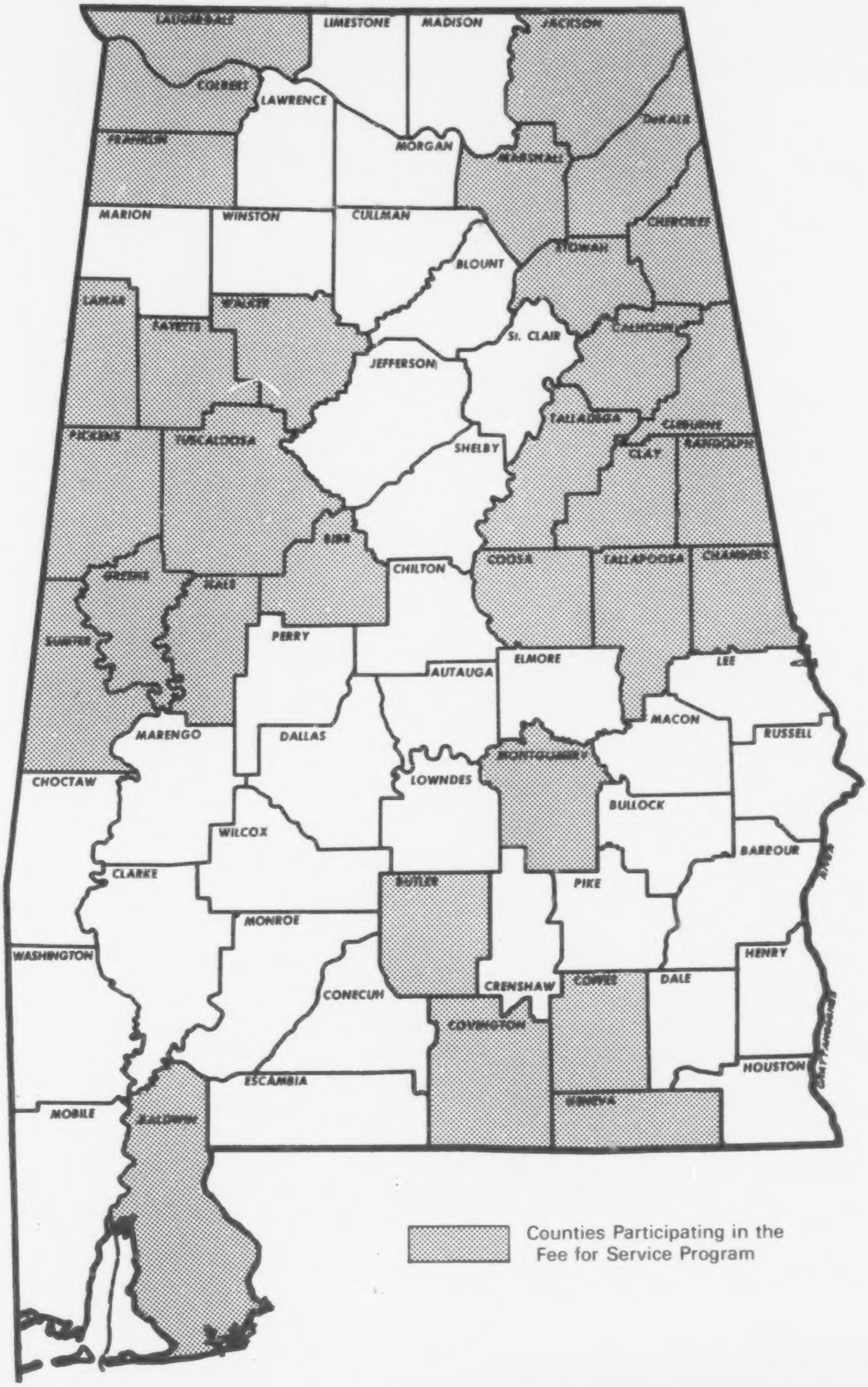
## GRAPH 10-1
## PATIENTS
## HOME HEALTH AGENCY SUBUNITS
## COUNTY HEALTH DEPARTMENTS
## FISCAL YEARS 1980-1983



### GRAPH 10-2
### VISITS
### HOME HEALTH AGENCY SUBUNITS
### COUNTY HEALTH DEPARTMENTS
### FISCAL YEARS 1980-1983



# CHART 10-2
# COUNTY HEALTH DEPARTMENT SUBUNITS
# FEE FOR SERVICE PROGRAM
# FISCAL YEAR 1983


LAUDERDALE
LIMESTONE
MADISON
JACKSON
COLBERT
LAWRENCE
DEKALB
FRANKLIN
MORGAN
MARSHALL
MARION
WINSTON
CULLMAN
CHEROKEE
ETOWAH
BLOUNT
LAMAR
WALKER
FAYETTE
St. CLAIR
CALHOUN
JEFFERSON
TALLADEGA
CLEBURNE
PICKENS
TUSCALOOSA
SHELBY
CLAY
RANDOLPH
BIBB
CHILTON
COOSA
TALLAPOOSA
CHAMBERS
GREENE
HALE
SUMTER
PERRY
AUTAUGA
ELMORE
LEE
MARENGO
DALLAS
MACON
RUSSELL
MONTGOMERY
CHOCTAW
LOWNDES
BULLOCK
WILCOX
BARBOUR
CLARKE
BUTLER
PIKE
MONROE
WASHINGTON
HENRY
CRENSHAW
COFFEE
DALE
CONECUH
COVINGTON
ESCAMBIA
HOUSTON
GENEVA
MOBILE
BALDWIN
▨ Counties Participating in the Fee for Service Program

BEST AVAILABLE COPY

The Division of Home Health Services staff are concerned about two proposed changes in the Medicare program. During 1983 Health Care Financing Administration notified fiscal intermediaries that daily home health visits for longer than two to three weeks did not constitute intermittent care. Home health providers disagreed since visits of one to two hours out of twenty-four are not continuous care. Legislation to clarify the issue has been proposed.

Another issue of grave concern is Health Care Financing Administration's proposed definition of homebound. A large percentage of patients presently being served in the Medicare program will no longer be eligible for home care under the new criteria for being homebound. Primarily only bedridden and house confined patients would qualify for services. In the past patients could be absent from home infrequently; usually absences were for seeking medical services.

Quality care continued to be the primary goal of the division and its subunits. These services will be provided within the existing rules and regulations of all facets of the Home Health Program.

## Division of Planning, Training and Evaluation

The Division of Planning, Training and Evaluation is charged with the responsibility of providing educational programs for public health nurses which will enhance their ability to provide nursing services to meet the health needs of the community, the family and the individual.

Public health nursing staff development programs were planned, implemented and evaluated by this division with assistance from the area public health nursing directors and consultants. Program content was determined by the assessment of nursing needs. For 1983 the first program was "Sexually-Transmitted Diseases." Personnel of the Division of Venereal Disease Control, Bureau of Preventive Health Services, presented this program for 342 nurses. Public health nurses were made aware of the health problem of acquired immunodeficiency syndrome (AIDS) and have had opportunity of following the developing information on this disease.

"Epidemiology" was the topic for the second session. This has continued to be a topic of concern to public health nurses. The director of the Bureau of Epidemiology and Consultation and his staff provided a very informative presentation to assist public health nurses to function in collaboration with other members of the epidemiological team as well as the bureau. This program was provided in 13 locations with 273 nurses in attendance.

The topic of the third staff development program was "Hypertension." The public health nursing planning committee worked with the director of the Division of Hypertension, Bureau of Preventive Health Services, and with the health education coordinator with the University of Alabama in Birmingham, School of Public Health/Project HELP, in planning a very comprehensive educational program. Outstanding speakers in the field of medicine, nutrition, lifestyle and nursing care presented the latest information on hypertension. District and local health officers also participated. Nursing staff within the hypertensive program provided important information on nursing care. This program attracted 302 nurses.

The bureau staff and the area nursing directors and consultants met in August to plan the educational programs for 1984.

This division in cooperation with the Division of Home Health Services planned and conducted the Home Health Service Coordinators' Workshop June 28-29, 1983. Sixty-nine public health nurses participated in this workshop. Nurses in home health services have found diabetes to be a major diagnosis in their case loads; therefore "Focus on Diabetes" was presented to update knowledge of this disease and its implication for nursing care.

The Public Health Nursing Supervisors' Workshop was held November 30-December 1, 1983, in Montgomery. Sixty public health nursing supervisors worked together to improve their skills in supervisory and management techniques. The dean of the School of Nursing, Auburn University at Montgomery, discussed therapeutic touch in nursing care.

The Human Service Aide Workshop held in eleven areas of the state featured information on diabetes and stroke. The goals were to assist the aides in understanding problems of patients with these diagnoses and their role in providing aide services. Each session was attended by 164 aides and 33 public health nursing coordinators.

During the year workshops for public health nurses included "Problem Oriented Recording" held in four locations with a total of 26 in attendance and "Time Management Mini Workshops" held in 14 areas of the state with 236 nurses attending. Both of these workshops were approved for continuing education units through the Alabama State Nurses' Association; therefore those who attended were awarded CEUs.

Public health nursing state orientation programs were conducted in Montgomery for the weeks of March 28, 1983, and September 26, 1983. Twenty-seven public health nurses attended these programs. The nurses who have completed this orientation have expressed appreciation for knowledge of the principles of public health nursing and the mission of the official agency in providing public health services.

The Division of Planning, Training and Evaluation has worked with the Division of Home Health Services and the Department of Pensions and Security in developing an educational program to train homemakers to provide more comprehensive care to patients. The nursing staffs teaching these courses in designated areas have been provided with curriculum guides, audiovisual aids, and supervisory and technical assistance from this division.

This division worked with the Coffee County Health

Department staff to develop a slide presentation to be used by the Coffee County Health Department's Division of Home Health Services to inform the community of services provided by that agency.

A workshop, "Documentation for Reimbursement," was conducted by members of this division at the Alabama Association of Home Health Agencies' Convention in Birmingham. Nurses attended from both public and private agencies. Continuing education units were awarded by the Alabama State Nurses' Association.

Members of the Division of Planning, Training and Evaluation were involved in coordinating, co-sponsoring or providing support services to other bureaus, agencies, organizations and schools throughout the state.

The division worked with the public health area nursing directors and consultants to develop standards of practice for public health nurses. These standards were completed and have been distributed to public health nurses in the field. The development of standards of practice for patient care is planned for the early months of 1984.

This division will continue to assess the needs of the public health nurse and provide educational support individually or collectively.

# SPECIAL SERVICES ADMINISTRATION

# SPECIAL SERVICES ADMINISTRATION

This administration is responsible for the overall supervision of three bureaus consisting of ten divisions. The staff is composed of two persons charged with the responsibility to improve efficiency, provide technical support, plan for future delivery of service and automate the entire department so that cost reductions will enable increased units of service at lower costs.

The mission for the eighties is to concentrate on preventive health education programs designed around persons taking responsibility for changing lifestyles; improve direct services to the public through timely recording of vital events, reproducing records, and providing statistical data that are meaningful; and continue computerizing all state and county health department operations in order to improve delivery of preventive health services.

A report of the activities of the three bureaus follows giving a breakdown of needs and accomplishments during 1983.

## BUREAU OF HEALTH DATA SYSTEMS

The Bureau of Health Data Systems is responsible for developing and maintaining computer systems and providing data services for 22 users within the Health Department. The major objective for 1983 was to provide an increased level of data service to all users. In order to accomplish this the bureau was reorganized into three major divisions—Administration, Data Services and Technical Services.

### Data Services Division

The Data Services Division consists of a data entry staff of 12, a computer operations staff of three, a production control staff of three and a supervisor of data services. This division performed data entry services of 360 million characters, handled and controlled 6.6 million records, and produced 39,000 jobs consisting of 84 million lines of printed output. General improvements were made in the areas of production control of documents and job submission and scheduling.

### Technical Services Division

The Technical Services Division consists of seven systems and programming staff and one manager. This division was responsible for maintaining 1,385 existing computer programs. During the year the division performed 602 alterations to existing programs, and 164 new programs were written and tested. Major development occurred for the Bureau of Licensure and Certification and the Health Personnel Division with minor development in the Venereal Disease Control Program of the Bureau of Preventive Health Services. This division expended 11,060 man-hours programming.

The IBM System 34 memory disk storage and data communications facilities were enhanced to allow growth for these major applications. This allowed expanded use of on-line display stations in keeping with the more modern methods of processing data.

Major development areas planned for 1984 include the Division of Finance, Personnel Division, Family Health Administration and the Bureau of Vital Statistics.

## BUREAU OF PRIMARY PREVENTION

To maximize effective use of limited resources, the Bureau of Primary Prevention has modified its emphases. Instead of initiating and conducting new health promotion activities, it more often coordinates programs with other agencies which have similar goals and purposes. It has approached health promotion through mass media, printed materials and exhibits to reach larger audiences with fewer staff.

With the reduction in block grant funds, the bureau has sought other sources of funds. During 1983 the bureau prepared and submitted a proposal to the U.S. Food and Drug Administration to promote the Medical Device Problem Reporting System. The grant was approved; therefore Primary Prevention and the Bureau of Licensure and Certification will implement the program which is a cooperative effort of FDA and the United States Pharmacopeia. The bureaus will publicize the availability of a central system which health care professionals can use to report malfunctions or deficiencies in medical devices or to make suggestions for improving them.

The Bureau of Primary Prevention submitted a proposal to provide product safety investigations for the U.S. Consumer Product Safety Commission. This proposal was also approved for limited funds.

The bureau requested funds for the Occupant Safety Program from the Office of Highway and Traffic Safety. The fiscal year 1984 grant provides funds to promote adult seat belt usage as well as child automobile restraints.

### Division of Graphic Communication

From typewritten manuscripts, the Division of Graphic Communication prepares camera-ready copy and coordinates the printing so that other units of the department have forms, pamphlets, books and other publications necessary for their activities.

Printing for the Health Department continued to decrease in 1983. The division received 1,064 requests for printing which required more than 17.5 million impressions. The $214,725 expended for printing is 19.1 percent less than 1982 and 34.5 percent less than 1981. Lack of funds has necessitated the reduction in printing. Table 11-1 gives a breakdown by month.

### TABLE 11-1
### DEPARTMENT PRINTING
### FISCAL YEAR 1983

| | Requests | Impressions | Cost |
|---|---|---|---|
| October | 55 | 632,507 | $ 7,459.24 |
| November | 76 | 1,468,407 | 18,610.89 |
| December | 63 | 530,430 | [illegible]732.06 |
| January | 92 | 1,068,491 | 14,848.64 |
| February | 82 | 2,354,157 | 27,433.04 |
| March | 104 | 1,346,828 | 18,148.15 |
| April | 94 | 1,105,471 | 14,285.05 |
| May | 84 | 1,679,151 | 18,653.37 |
| June | 110 | 1,733,370 | 22,522.90 |
| July | 85 | 1,963,535 | 19,966.32 |
| August | 121 | 1,785,132 | 19,146.78 |
| September | 106 | 1,912,261 | 24,919.26 |
| TOTAL | 1,072 | 17,579,740 | $214,725.70 |

*Pat Hill checks copy to decide which codes should be entered for typesetting.*

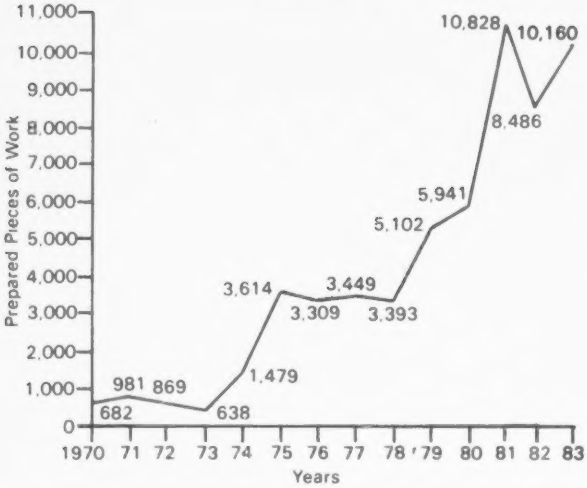
Usually the first step from rough copy to printing is the typesetting. In 1983 the typesetters produced 3,107 items, or 27 percent more than the previous year. The kinds of materials typeset changed, some significantly. Table 11-2 permits a three year comparison.

### TABLE 11-2
### TYPESET MATERIALS
### 1981-1983

| Kind of Materials | 1981 | 1982 | 1983 |
|---|---|---|---|
| Books | 27 | 40 | 37 |
| Book Covers | 11 | 50 | 40 |
| Brochures | 44 | 51 | 34 |
| Bumper Sticker | | 1 | 2 |
| Calendar | 1 | 1 | 1 |
| Calling Cards | 96 | 57 | 66 |
| Certificates | 289 | 26 | 33 |
| Charts | 84 | 12 | 31 |
| Cue Cards | 4 | 8 | |
| Documents | 444 | 64 | |
| Envelopes | 11 | 8 | 4 |
| Forms | 326 | 172 | 269 |
| Graphs | 122 | 20 | 176 |
| Invitations | 4 | | 3 |
| Labels | 4 | 84 | 848 |
| Letterheads | 13 | 12 | 6 |
| Letters typed on MT/ST | 295 | 140 | |
| Maps | 39 | 11 | 13 |
| Name Placards | 90 | 99 | 24 |
| Newsletters | 4 | 5 | 2 |
| Organizational Chart | 5 | 1 | 6 |
| Pamphlets | 9 | | |
| Posters | 23 | 53 | 112 |
| Programs | 10 | 4 | 2 |
| Route Slips | 5 | 33 | 10 |
| Seals | 2 | | |
| Signs | 7 | | 2 |
| Slides | 210 | 1,465 | 1,145 |
| Tables | 6 | | |
| Tag | | 1 | 1 |
| Transparencies | 21 | 48 | 139 |
| Miscellaneous | | 1 | 37 |
| TOTAL | 1,767 | 2,446 | 3,107 |

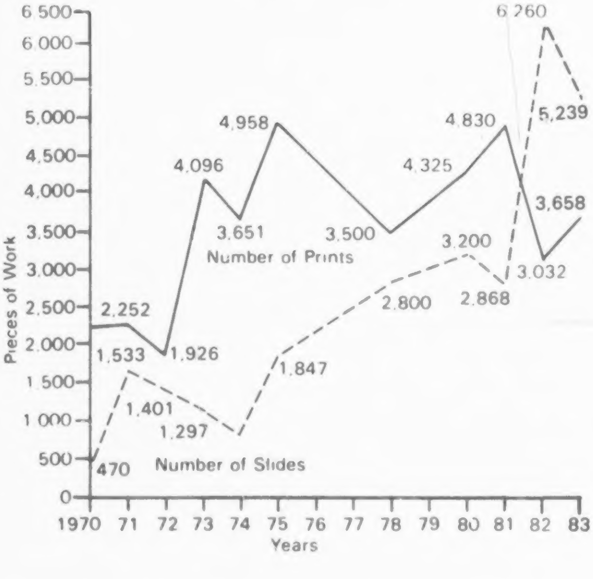
The artist/illustrators paste up copy in preparation for printing. If graphs, charts or artistic pictures are used to enhance effectiveness and aesthetic appeal, the artists prepare these. Graph 11-1 illustrates the fluctuation in the number of articles to which the artists made a contribution.

GRAPH 11-1
ARTIST/ILLUSTRATORS
1970-1983



Photographs are often used to illustrate printed material and oral presentations. In addition to three slide programs, the photographers processed 9,369 pictures. Graph 11-2 shows the number of slides and prints since 1970.

GRAPH 11-2
PHOTOGRAPHIC SERVICES
1970-1983



ACCIDENTAL DEATHS TO CHILDREN 0-14 YRS. OF AGE
41%
Motor Vehicle
17%
Drowning
1%
1%
Poisoning
Fire
5%
10%
16%
Falls
Firearms
Suffocation

*Susan Bland checks an exhibit which promotes child safety.*

## Division of Health Education

The Division of Health Education urges individuals to adopt good health practices and to accept responsibility for personal health. It proposes to inform them about lifestyles which contribute to good health so that they can make intelligent decisions.

With the reduction in federal funds, the Bureau of Primary Prevention has adjusted its activities to reach as many people as possible with each endeavor. It has served as liaison to strengthen working relations among various agencies. It assisted other organizations and state departments with health promotion conferences. A wellness conference and drug related conferences were cosponsored by several groups so that working relations were enhanced.

Accident prevention was one emphasis of the bureau during 1983. Radio, television, workshops, and classes were used to discuss passenger safety and driving while intoxicated. Overall 79 presentations were made for health education and information.

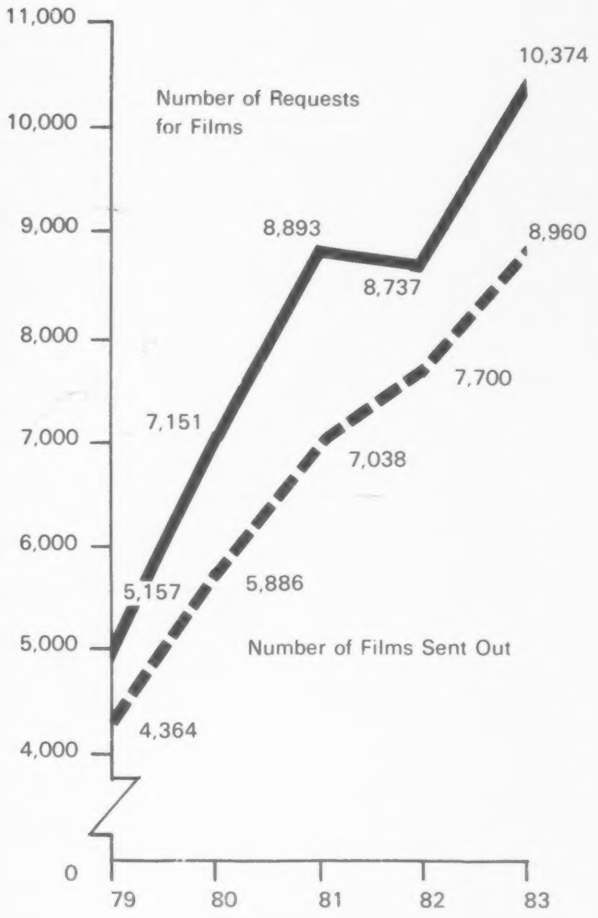
The bureau coordinated an accident prevention campaign with the Maternal and Child Health Program. Preventing death and disability from motor vehicle accidents, fires, poisons, drownings, and suffocations was emphasized. Seven flyers were prepared with short, easy to read safety tips appropriate for various age levels at which children are taken to the county well child clinics. For each age level a different color of paper was used making it easier for nurses to find the appropriate flyer.

Information on the dangers of dropside playpens and portable cribs, water safety, fireworks related injuries, and sunburns were released to the media. Forty-five articles were printed based on this information.

The bureau promoted the use of clinical services of the Family Health Administration by arranging to have information about the services printed on two monthly checks of 55,000 recipients of Aid to Dependent Children from the Department of Pensions and Security.

In 1983 the Bureau of Primary Prevention received 10,374 requests for films and was able to respond to 8,960 or 86.4 percent of them. At least 406,460 persons viewed these films. (Some borrowers do not report attendance.) Graph 11-3 shows the increase in film usage. The film catalog was revised last year.

GRAPH 11-3
FILM LIBRARY REPORT
1979-1983



The bureau is responsible for maintaining and distributing audiovisual equipment. During the year 707 pieces of equipment were borrowed. These included projectors, public address systems, screens, extension cords, easels, exhibit equipment, audio cassette players, video cassette players and televisions.

## Division of Health Information

Communicating the health message to vast audiences is the goal of the Division of Health Information. Printed, audio and video materials are used to disseminate information. During 1983 news releases, public service announcements and health articles totaled 10,343. Because of the extensive use of the information and the circulation of the publications using it, a large segment of the state's population is being reached by the Bureau of Primary Prevention.

Public service announcements were prepared to publicize bureau programs as well as other activities in the Health Department. The quality of one video PSA which the bureau produced for the Women, Infants and Children Supplemental Food Program was recognized with an award from International Association of Business Communicators/Montgomery.

In helping others, the bureau prepared a slide series for both Dale and Coffee counties to explain public health activities. It also assisted Shelby County by producing a slide series for its prenatal clinic.

The Bureau of Primary Prevention cooperated with the Bureau of Radiological Health during the nuclear power plant emergency exercises. Primary Prevention staff served as information officers for training exercises and test drills for Browns Ferry and Farley plants.

When the bureau initiated the Child Restraint Program in 1980, the first survey showed a usage rate of 7.9 percent statewide. Usage has improved until the 1983 autumn survey indicated an overall usage rate of 19.9 percent. The increase can be attributed to several endeavors. Publicity has increased awareness of the need for children to be restrained. News releases, public service announcements, exhibits, brochures and five presentations were aimed at informing parents of the danger of children being unrestrained. The 1982 child restraint law which the bureau endorsed is further inducement for using safety seats. Through safety seat loan programs, indigent and low income parents secure the use of restraints with minimum expenditure. The bureau has been instrumental in developing loan programs and has compiled a directory of them. Thirty programs were operational in 1983.

More than a thousand letters urging day care mothers to use safety seats when transporting children were distributed in every county through the Department of Pensions and Security.

In 1983 the Child Automobile Safety Seat Program received the Alabama Outstanding Achievement Award from the Secretary of the U.S. Department of Health and Human Services.

Ten displays which the staff prepared were used at health fairs, at state fairs, in the State Office Building and in county health departments. They promoted child restraint and adult seat belt usage, accident prevention, WIC Programs, and public health clinics.

Talks to classes and other groups were a means of informing the public of health services.

Upgrading the library consisted of cataloging new books, reclassifying some others and removing obsolete ones. Its holdings increased minimally in 1983 due to lack of funds. Only eight books were purchased, and donations added another four or five books. In addition government documents were received. An important service of the library is assisting Health Department staff and the general public to secure current health information.

The bureau received requests for 498,276 documents during fiscal year 1983. In response it distributed, 398,547 copies of pamphlets, library information, *Alabama's Health,* directories, catalogs and other printed materials. To cut printing costs, the bureau has limited the number of titles of brochures it produces. To cover the subjects requested, several brochures were combined and condensed. A few new brochures were written.

Through these various activities, the Bureau of Primary Prevention served the general public and health oriented professionals by conducting programs and assisting others with theirs.

## BUREAU OF VITAL STATISTICS

### Division of Microfilm Services

The primary responsibility of the Division of Microfilm Services is microfilming the records of births, deaths, marriages, divorces, and fetal deaths and producing certified copies of these vital records. This division has worked very closely with the divisions of Record Services and Registration Services to receive, microfilm, and bind into permanent volumes more than 228,000 vital records—an average of 19,000 per month. Of the 228,511 certified copies produced, 88,063 were from microfilm.

The division has made its microfilm services available to Health Department programs and to all other state agencies. One of the big users of this service has been the WIC Program. During the year 2,300,000 documents were microfilmed, and 1,884,590 of them were WIC vouchers for which the Health Finance Division was responsible. These vouchers, which would have filled approximately 58 file cabinets, were placed on 58 rolls of microfilm that could be stored in a single desk drawer. Other state agencies that utilized the microfilm services were the State Finance Department, the Engineers and Land Surveyors Board, the State Securities Commission, and the State Personnel Board.

During the latter part of 1983 the division began a program that will eliminate the two year delay in filming the birth certificates. In order to accomplish this task, the 165,636 birth certificates for 1981, 1982 and 1983 will be microfilmed. When the project is completed in 1984, the birth certificates will be filmed on a one month delay basis. This project, along with the proposed monthly computer indexing, will enable the division to produce certified copies of birth certificates from microfilm within two months after the certificate is received. Certificates produced from microfilm are expected to increase from 40 percent to approximately 75 percent.

The new color coding of the bound volumes has enhanced filing efficiency as well as added color to the storage and retrieval vault. More than 1,345 volumes were bound in 1983.

The division requisitioned a new, more modern film processor to replace the processor currently in use. More than 105,000 feet of film were processed during the year.

### Division of Record Services

The Division of Record Services has responsibility for vital records after they have been given a state file number. These consist of birth, death, marriage, divorce, fetal death and delayed birth records. Additional records are amendments to all vital records except divorce reports and fetal deaths; new certificates prepared after adoption and legitimation proceedings; and the confidential files which house the original birth records before adoption or legitimation, final decrees of adoption, declarations of paternity, and declarations of legitimation.

The primary responsibility of this division is to preserve these valuable records and to deliver services to the public as quickly as possible while always striving for excellence in quality of service.

Nearly all services showed an increase in 1983 except birth amendments and noncertified copies to copy-issuing centers. The decrease in copies to copy-issuing centers resulted from the removal of all original birth records and cards on adopted children from the county health departments to prevent the natural parents from tracing the children. The decrease in birth amendments was due to Jefferson County not amending as many records as it had in previous years.

The pieces of mail received in 1983 was 3,195 more than in 1982. Without the additional data terminal system purchased for the mail room, it would have been difficult to record the increase of $64,407.95 in fees that this mail contained.

Of the 228,511 certified copies issued, 176,215 were delivered by mail, and 52,296 were issued at the service counter. As usual, August was the biggest month for copies with 24,300 being issued for school and sport activities.

Adoptions increased by 96 for those persons born in Alabama and by 105 for those born out of state. Total adoptions completed were 3,469 for an overall increase of 201.

Legitimations continued to increase for a total of 2,308—an increase of 311 over 1982.

The division will save time and energy since the 1981 and 1982 birth records have been put into the computer.

Because the Bureau of Vital Statistics has the largest file on the computer, it was necessary to remove some of the older births from the file. All births that occurred from 1875 through 1914 were removed, leaving a span of seventy years on the computer. This was approximately 300,000 records.

With the bureau having complete computer services in 1984, the turnaround time for service to the public will be minimal.

### TABLE 11-3
### RECAP OF RECORD SERVICE ACTIVITIES 1982 and 1983

| | 1983 | 1982 |
|---|---|---|
| Legitimations | 2,308 | 1,997 |
| Court Legitimations Pending | 157 | 250 |
| Adoptions | | |
| Alabama Born | 2,672 | 2,576 |
| Out-of-state Born | 797 | 692 |
| TOTAL | 3,469 | 3,268 |
| Amendments | | |
| Births | 8,551 | 8,613 |
| Deaths | 115 | 113 |
| Marriages | 40 | 25 |
| TOTAL | 8,706 | 8,751 |
| Certified Copies | | |
| Issued by Mail | 176,215 | 171,002 |
| Issued at Service Counter | 52,296 | 46,882 |
| TOTAL | 228,511 | 217,884 |
| Noncertified Copies | | |
| To Copy-issuing Centers (Free) | 1,567 | 2,607 |
| To Child-placing Agencies (Free) | 508 | 462 |
| Deaths & Births (Paid) | 2,252 | 1,878 |
| TOTAL | 4,327 | 4,947 |
| Pieces of Mail Received | 176,120 | 172,925 |
| Fees Received | $1,113,620.03 | $1,049,212.08 |
| No Records | | |
| Births | 14,984 | 14,015 |
| Deaths | 854 | 855 |
| Marriages | 327 | 140 |
| Divorces | 220 | 154 |
| TOTAL | 16,385 | 15,164 |
| Verified for Alabama Pensions and Security (Free Welfare) | | |
| Located | 386 | 293 |
| No Record | 93 | 116 |
| TOTAL | 479 | 409 |
| Certified Copies Issued | | |
| Births | 167,712 | |
| Deaths | 58,532 | |
| Marriages | 1,967 | |
| Divorces | 284 | |
| Stillbirths | 16 | |

## Division of Registration Services

More than 170,000 records of births, deaths, fetal deaths, marriages and divorces were received, edited and filed by the Division of Registration Services during 1983. A slight decrease in the number of births and a slight increase in the number of marriages and divorces account for about 1,000 more records being filed this year than the previous year.

Over 31,500 applications for certified copies of current birth certificates were processed during the year; most of them were received directly from Alabama hospitals. The fees received from these hospitals totaled $147,504, showing a 4 percent decrease from the previous year and closely corresponding to the overall decline in births for 1983. The processing of applications for certified copies of current death certificates totaled over 9,200, remaining consistent with the previous year's total.

In 1983 the division worked on 8,862 delayed birth certificate files, and actually filed 2,330 certificates. While the total number of delayed birth certificates processed exceeded the previous year's total by 15 percent, the number actually filed showed a 29 percent decrease. This decrease was expected because of evidential requirements which were introduced in 1983 to improve the overall quality of delayed birth registration in Alabama.

**Field Services**—During 1983 the field program was without a full-time representative; however 110 visits to hospitals, physicians, funeral homes, coroners and local health departments required 8,000 miles of travel.

Nine vital statistics seminars for local registrars, coroners, funeral home directors and medical records personnel were held throughout the state. More than 400 people attended these seminars where the major emphasis was placed on completion and timely filing of monthly hospital and funeral home reports. Students at the University of Alabama in Birmingham who are studying to be medical record technicians were special guests at the meeting in Birmingham.

Each month a delinquent certificate report which included the names of the physicians responsible for the medical certification was submitted to the State Committee of Public Health. During the year 36 physicians that filed late certificates were reported.

With the installation of the new computer system and a terminal available to the field program, the efficiency of the field representative is expected to increase during the coming year.

## Division of Statistical Services

The Statistical Services Division seeks to provide current data on vital events by answering requests and distributing printed materials.

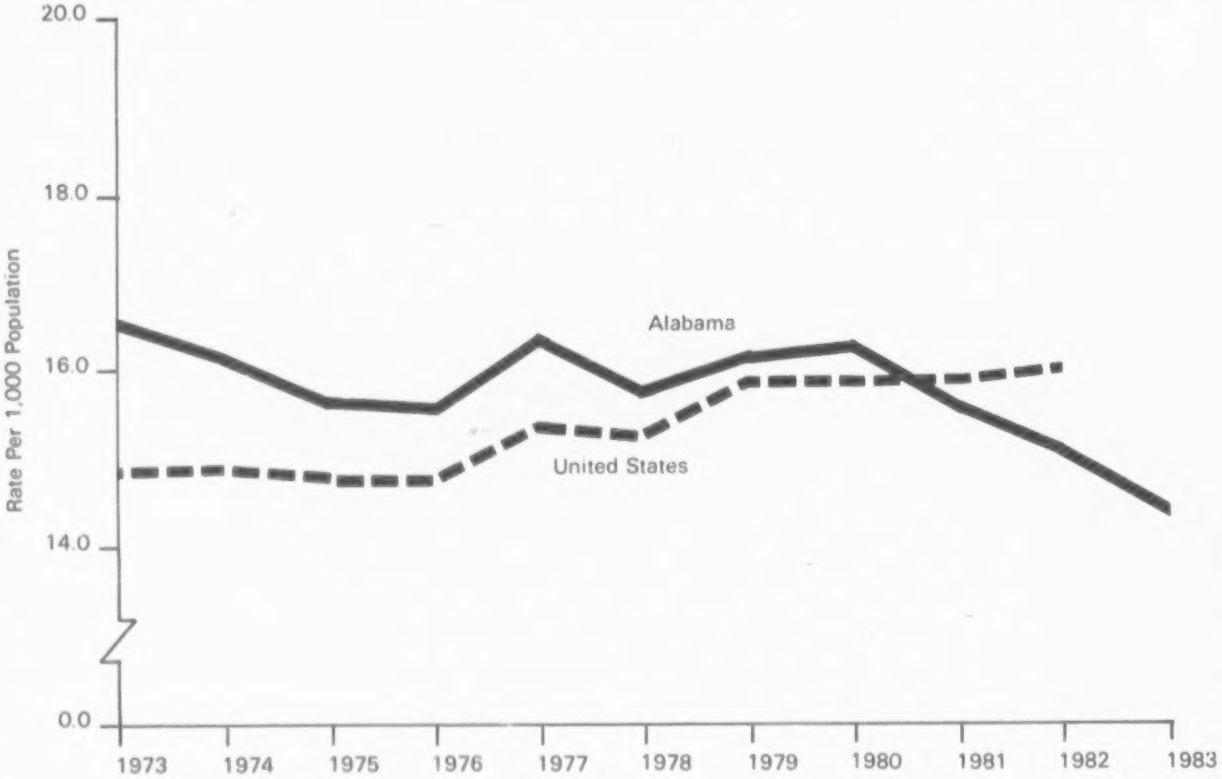
Vital events data, natality, mortality, teenage birth statistics, resident births by place of occurrence, and data from the linkage of infant deaths and birth records were published again in 1983. In addition data on the population of Alabama from 1930 through 1980 were published. A new quarterly report format was adopted, allowing all employees of the Bureau of Vital Statistics to submit articles of interest about the duties of various positions or on related health subjects. Numerous other data prepared for the first time during 1983 but not published included such items as fertility rates by county, births by cesarean delivery by age of mother, median age at death by county, and life table values for the state by race and sex.

A renewed contract with the Cooperative Health Statistics System of the Department of Health and Human Services enabled the Bureau of Vital Statistics to seek voluntary cooperation among data users at all levels of government in developing a current and accurate data base.

All data given are reports of the vital events occurring to Alabama residents during 1983.

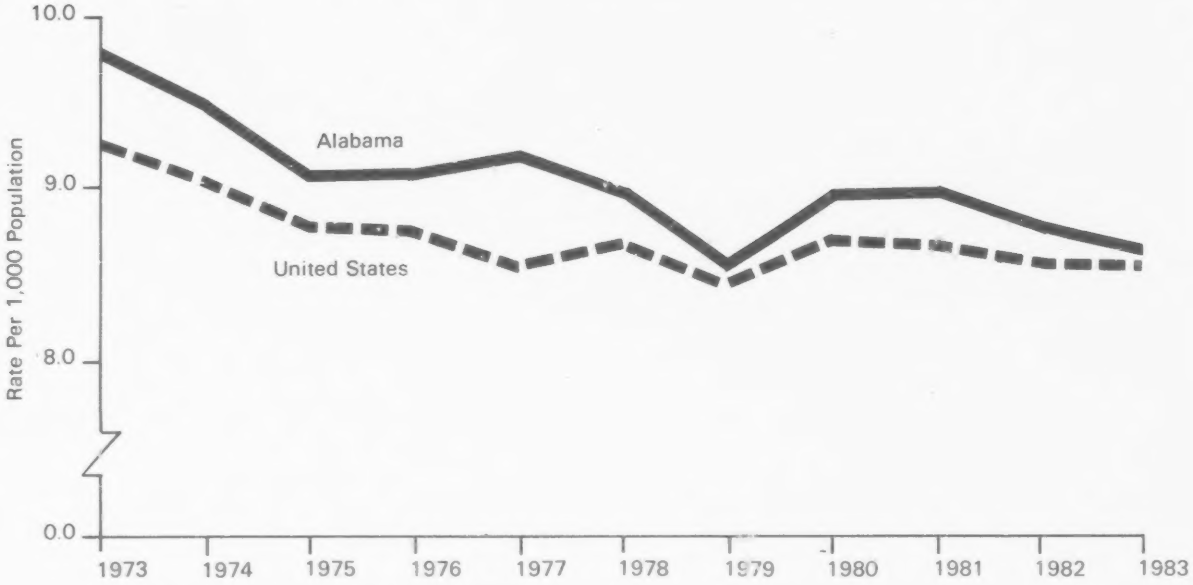
**Births**—The crude birth rate continued to decline during 1983. The 59,057 live births occurring to Alabama residents resulted in a 14.4 crude live birth rate. This is the lowest birth rate ever recorded in Alabama. Graph 11-4 gives the birth rates for Alabama and the United States since 1973.

GRAPH 11-4
LIVE BIRTH RATES
ALABAMA AND UNITED STATES
1973-1983

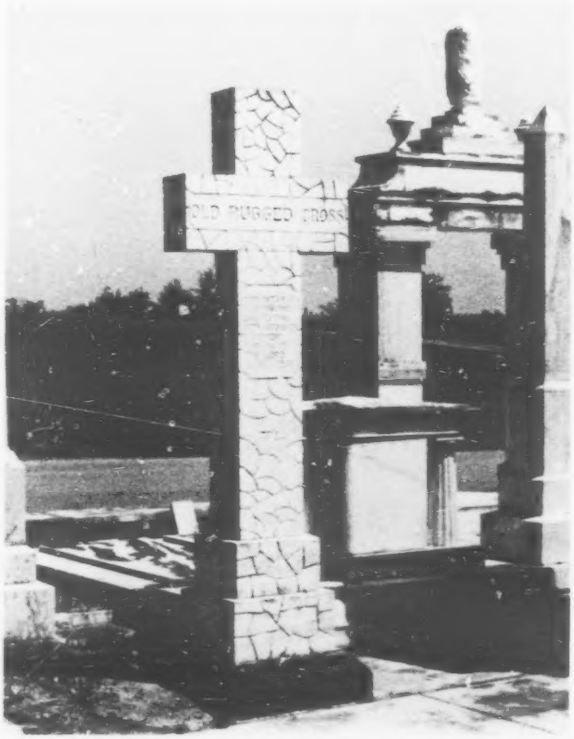


U.S. Rate 1983 Not Available
U.S. Rate 1980, 1981, 1982 and Alabama 1983 Rate Provisional

### GRAPH 11-5
### MORTALITY RATES
### ALABAMA AND UNITED STATES
### 1973-1983



U S Rate 1980, 1981, 1982 and Alabama Rate 1983 Provisional



**Deaths**—The general mortality rate for 1983 was about the same as that for 1982. Final data indicate that the 35,471 deaths to Alabama residents during 1983 resulted in a crude mortality rate of 8.7. The number of deaths increased 514 more than the 1982 figure with the mortality rate increasing from 8.6 to 8.7. Mortality rates for Alabama and the United States are presented in Graph 11-5.

Heart disease continues to be the leading cause of death to Alabama residents as it has been since 1926. Final data indicate that the rate of heart disease mortality decreased during 1983 but the number of deaths from heart disease increased.

Malignant neoplasms remained the second leading cause of death of Alabama residents. The 7,495 deaths from cancer resulted in a mortality rate of 183.1 per 100,000 population.

Deaths of 3,152 Alabamians were caused by cerebrovascular diseases, which continued to be the third leading cause of death. Nearly 9 percent of all deaths were attributed to these diseases. The cerebrovascular disease mortality rate was 77.0 for 1983.

Accidental deaths in Alabama indicate a slight increase in number and mortality rate. The 49.8 mortality rate was derived from 2,037 accidental deaths.

Table 11-4 compares the leading causes of death for 1982 with 1983.

## TABLE 11-4
## LEADING CAUSES OF DEATH
## 1982 and 1983

| 1983 | | | | 1982 | | |
|---|---|---|---|---|---|---|
| **Rank** | **Number** | **Rate** | **Cause of Death** | **Rank** | **Number** | **Rate** |
| — | 35,471 | 8.7 | Total All Causes | — | 34,957 | 8.6 |
| 1 | 12,385 | 302.5 | Diseases of the Heart | 1 | 12,091 | 302.7 |
| 2 | 7,495 | 183.1 | Malignant Neoplasms | 2 | 7,343 | 183.8 |
| 3 | 3,152 | 77.0 | Cerebrovascular Diseases | 3 | 3,365 | 84.2 |
| 4 | 2,037 | 49.8 | Accidents | 4 | 1,907 | 47.7 |
| 5 | 1,063 | 26.0 | Chronic Obstructive Pulmonary Diseases & Allied Causes | 5 | 1,012 | 25.4 |
| 6 | 707 | 17.3 | Pneumonia & Influenza | 8 | 613 | 15.4 |
| 7 | 644 | 15.8 | Diseases of the Arteries | 6 | 663 | 16.6 |
| 8 | 603 | 14.7 | Diabetes Mellitus | 7 | 637 | 15.9 |
| 9 | 428 | 10.5 | Suicide | 10 | 427 | 10.7 |
| 10 | 423 | 10.3 | Homicide | 9 | 517 | 12.9 |
| — | 6,534 | — | All Other Causes | — | 6,382 | — |

**Infant and Fetal Mortality**—Infant deaths and the infant mortality rate for 1983 decreased from 1982. As Graph 11-6 shows the infant mortality rates in Alabama have fluctuated, but the overall decrease has exceeded the national average decrease even though Alabama's rate is above the United States rate. The 774 infant deaths in 1983 resulted in a 13.1 infant mortality rate. An even greater decrease in neonatal mortality occurred with 486 deaths in 1983 compared with 556 in 1982.

Final data indicate that the number of fetal deaths decreased in 1983 to 658, a numerical decrease of 17. The fetal death rate of 11.1 was a decrease from the 11.2 rate in 1982.

**Maternal Mortality**—Eight mothers died from complications of childbirth, labor and the puerperium during the year, and a 1.4 rate per 10,000 live births resulted.

**Marriages and Divorces**—The number of marriages during 1983 increased from the previous year. These 47,469 marriages resulted in a marriage rate of 11.6 per 1,000 population.

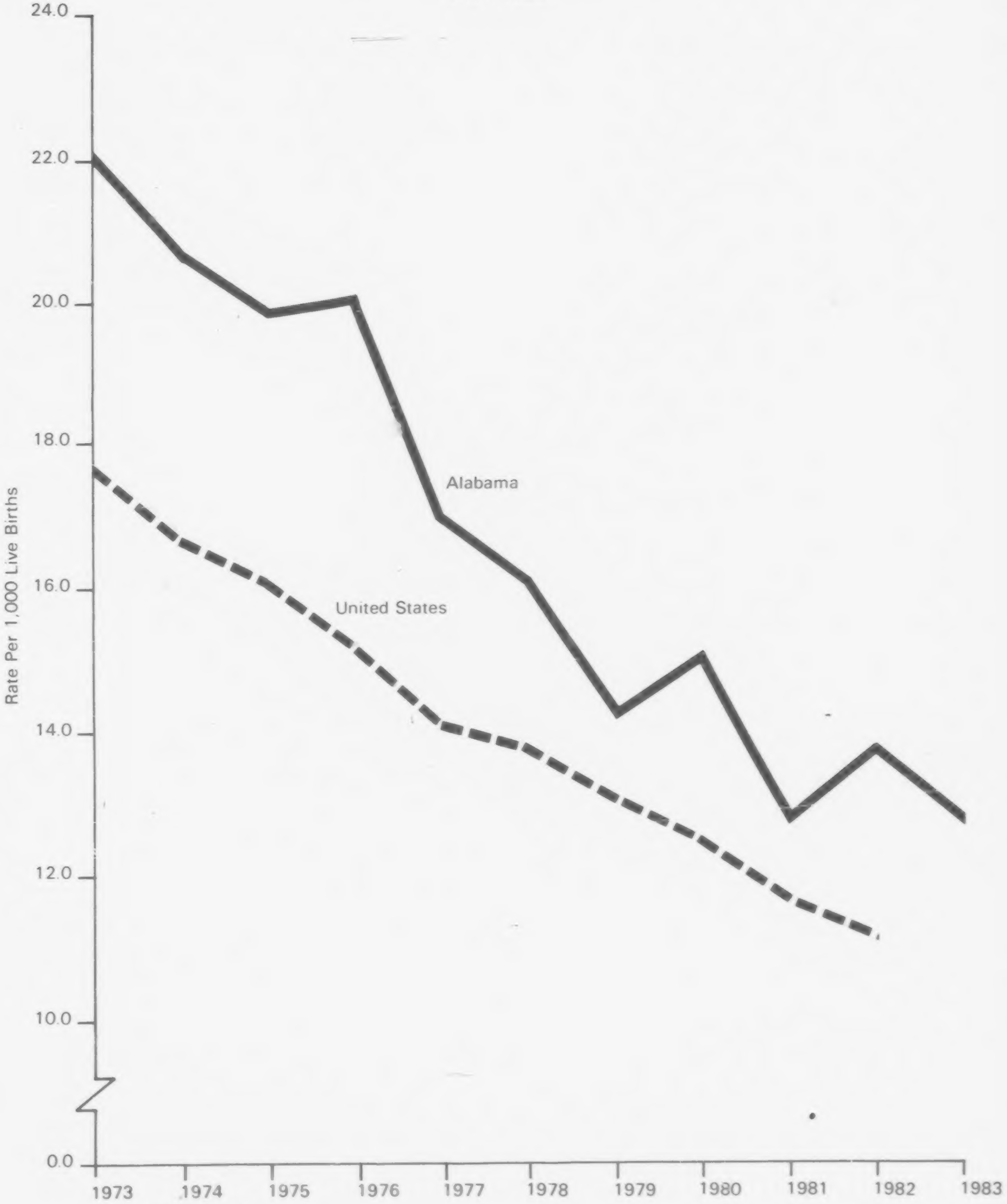
The 25,190 divorces occurring during 1983 in Alabama represent a numerical increase of 280. The divorce rate of 6.2 per 1,000 population remained the same as the rate of 1982.

**Population**—Alabama's estimated midyear 1983 population was 4,093,600, based on 1980 census data. About 74 percent of the population was white. There were more females than males in Alabama. The sex ratio remained almost the same as in 1982—about 108 females per 100 males.

RESIDENT BIRTHS
RECORDED BIRTHS

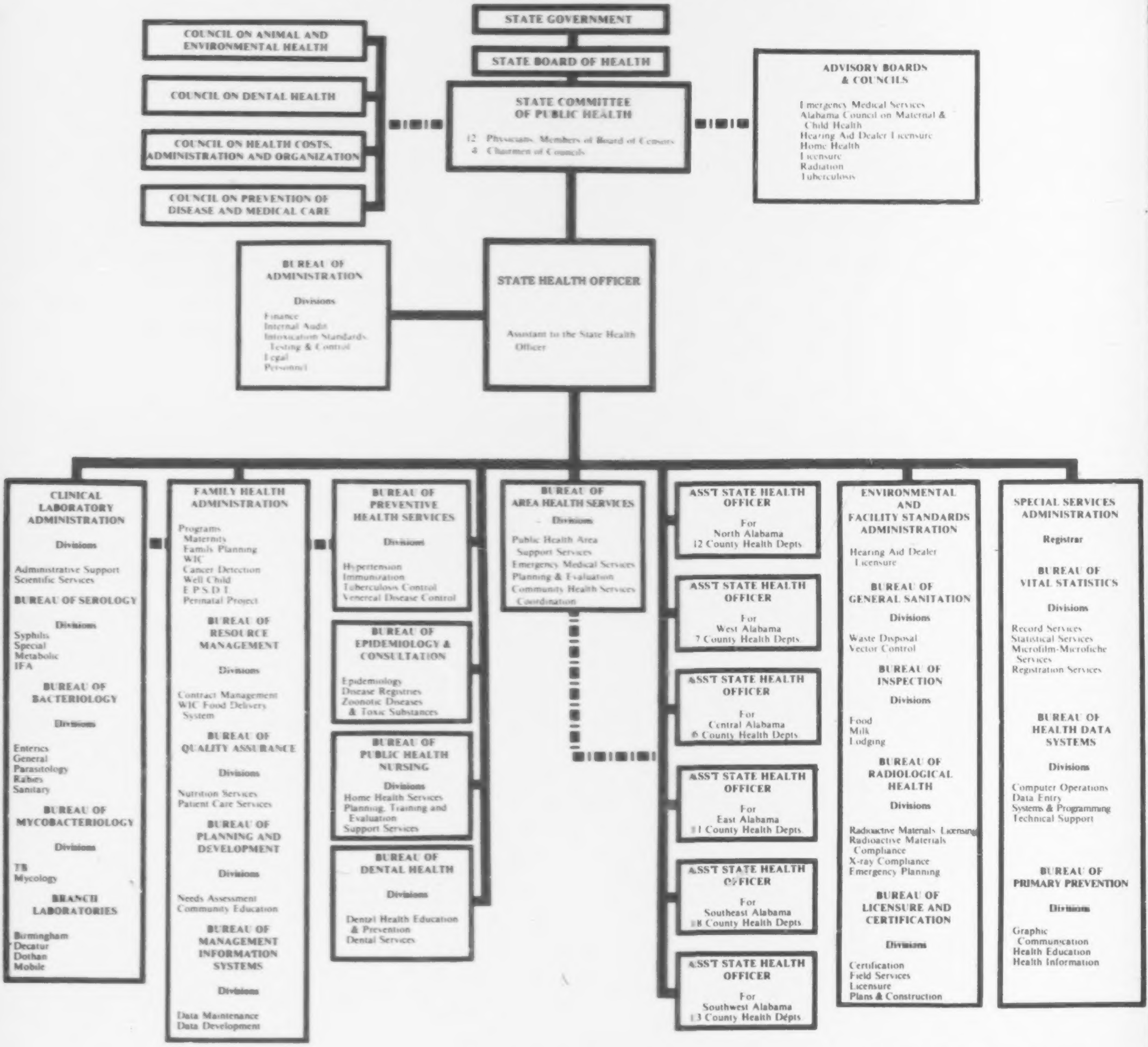
*Bill Jarrell analyzes statistics on vital events and edits reports for accuracy and completeness.*

### GRAPH 11-6
### INFANT MORTALITY RATES
### ALABAMA AND UNITED STATES
### 1973-1983



U.S. Rate 1983 Not Available
U.S. Rate 1980, 1981, 1982 and Alabama Rate 1983 Provisional

# ORGANIZATION OF THE ALABAMA DEPARTMENT OF PUBLIC HEALTH



**STATE GOVERNMENT**

**STATE BOARD OF HEALTH**

**COUNCIL ON ANIMAL AND ENVIRONMENTAL HEALTH**

**COUNCIL ON DENTAL HEALTH**

**COUNCIL ON HEALTH COSTS, ADMINISTRATION AND ORGANIZATION**

**COUNCIL ON PREVENTION OF DISEASE AND MEDICAL CARE**

**STATE COMMITTEE OF PUBLIC HEALTH**

12 Physicians, Members of Board of Censors
4 Chairmen of Councils

**ADVISORY BOARDS & COUNCILS**

Emergency Medical Services
Alabama Council on Maternal & Child Health
Hearing Aid Dealer Licensure
Home Health
Licensure
Radiation
Tuberculosis

**BUREAU OF ADMINISTRATION**

**Divisions**

Finance
Internal Audit
Intoxication Standards, Testing & Control
Legal
Personnel

**STATE HEALTH OFFICER**

Assistant to the State Health Officer

**CLINICAL LABORATORY ADMINISTRATION**

**Divisions**

Administrative Support
Scientific Services

**BUREAU OF SEROLOGY**

**Divisions**

Syphilis
Special
Metabolic
IFA

**BUREAU OF BACTERIOLOGY**

**Divisions**

Enterics
General
Parasitology
Rabies
Sanitary

**BUREAU OF MYCOBACTERIOLOGY**

**Divisions**

TB
Mycology

**BRANCH LABORATORIES**

Birmingham
Decatur
Dothan
Mobile

**FAMILY HEALTH ADMINISTRATION**

Programs
- Maternity
- Family Planning
- WIC
- Cancer Detection
- Well Child
- E.P.S.D.T.
- Perinatal Project

**BUREAU OF RESOURCE MANAGEMENT**

**Divisions**

Contract Management
WIC Food Delivery System

**BUREAU OF QUALITY ASSURANCE**

**Divisions**

Nutrition Services
Patient Care Services

**BUREAU OF PLANNING AND DEVELOPMENT**

**Divisions**

Needs Assessment
Community Education

**BUREAU OF MANAGEMENT INFORMATION SYSTEMS**

**Divisions**

Data Maintenance
Data Development

**BUREAU OF PREVENTIVE HEALTH SERVICES**

**Divisions**

Hypertension
Immunization
Tuberculosis Control
Venereal Disease Control

**BUREAU OF EPIDEMIOLOGY & CONSULTATION**

Epidemiology
Disease Registries
Zoonotic Diseases & Toxic Substances

**BUREAU OF PUBLIC HEALTH NURSING**

**Divisions**

Home Health Services
Planning, Training and Evaluation
Support Services

**BUREAU OF DENTAL HEALTH**

**Divisions**

Dental Health Education & Prevention
Dental Services

**BUREAU OF AREA HEALTH SERVICES**

**Divisions**

Public Health Area Support Services
Emergency Medical Services
Planning & Evaluation
Community Health Services Coordination

**ASS'T STATE HEALTH OFFICER**
For
North Alabama
12 County Health Depts.

**ASS'T STATE HEALTH OFFICER**
For
West Alabama
7 County Health Depts.

**ASS'T STATE HEALTH OFFICER**
For
Central Alabama
6 County Health Depts.

**ASS'T STATE HEALTH OFFICER**
For
East Alabama
11 County Health Depts.

**ASS'T STATE HEALTH OFFICER**
For
Southeast Alabama
18 County Health Depts.

**ASS'T STATE HEALTH OFFICER**
For
Southwest Alabama
13 County Health Depts.

**ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION**

Hearing Aid Dealer Licensure

**BUREAU OF GENERAL SANITATION**

**Divisions**

Waste Disposal
Vector Control

**BUREAU OF INSPECTION**

**Divisions**

Food
Milk
Lodging

**BUREAU OF RADIOLOGICAL HEALTH**

**Divisions**

Radioactive Materials Licensing
Radioactive Materials Compliance
X-ray Compliance
Emergency Planning

**BUREAU OF LICENSURE AND CERTIFICATION**

**Divisions**

Certification
Field Services
Licensure
Plans & Construction

**SPECIAL SERVICES ADMINISTRATION**

**Registrar**

**BUREAU OF VITAL STATISTICS**

**Divisions**

Record Services
Statistical Services
Microfilm-Microfiche Services
Registration Services

**BUREAU OF HEALTH DATA SYSTEMS**

**Divisions**

Computer Operations
Data Entry
Systems & Programming
Technical Support

**BUREAU OF PRIMARY PREVENTION**

**Divisions**

Graphic Communication
Health Education
Health Information

Administrative Relationship ━━━━━━
Advisory Relationship ■|■|■|■|■|■
Medical Consultation ■■■■■■■■

Prepared by Bureau of Primary Prevention

Approved Ira L. Myers
Ira L. Myers, M.D.

ADPH-D-A-1/Rev 4-84

## ASSISTANT STATE HEALTH OFFICERS, LOCAL HEALTH OFFICERS & HEALTH SERVICES ADMINISTRATORS

April 1, 1984

| COUNTY/DISTRICT | NAME | TITLE | TEL. NO. | MAILING ADDRESS |
|---|---|---|---|---|
| PUBLIC HEALTH AREA # 1 | Betty W. Vaughan, M.D. | ASHO | 353-7021 | Box 1628, Decatur 35602 |
| NORTHWEST AL REGIONAL HEALTH DEPT. | | | 383-1231 | Box 929, Tuscumbia 35674 |
| Colbert | Karen Landers, M.D. | DHO | 383-1231 | Box 929, Tuscumbia 35674 |
| Franklin | Karen Landers, M.D. | DHO | 332-2700 | Box 100, Russellville 35653 |
| Lauderdale | Karen Landers, M.D. | DHO | 764-7453 | Box 1036, Florence 35630 |
| TRI-COUNTY DIST. HEALTH SERVICES | | | 353-7021 | Box 1628, Decatur 35602 |
| Cullman | Betty W. Vaughan, M.D. | DHO | 734-1030 | 305 N. 4th Ave., N.E., Cullman 35055 |
| Lawrence | Betty W. Vaughan, M.D. | DHO | 974-1141 | Box 308, Moulton 35650 |
| Limestone | Betty W. Vaughan, M.D. | DHO | 232-3200 | 310 W. Elm St., Athens 35611 |
| Morgan | Betty W. Vaughan, M.D. | DHO | 353-7021 | Box 1628, Decatur 35602 |
| Jackson | Lyle Haas | HSA | 259-4161 | Box 398, Scottsboro 35768 |
| Madison | Lawrence L. Robey, M.D. | LHO | 539-3711 | Box 425, Huntsville 35804 |
| Marion | | | 921-3118 | Box 158, Hamilton 35570 |
| Marshall | Lyle Haas | HSA | 582-3174 | 275 Gunter Ave., Guntersville 35976 |
| Winston | | | 489-2101 | Box 57, Double Springs 35553 |
| PUBLIC HEALTH AREA # 2 | E. Kenneth Aycock, M.D. | ASHO | 345-4131 | 1101 Jackson Ave., Tuscaloosa 35401 |
| WEST AL DISTRICT HEALTH DEPT. | | | 345-4131 | 1101 Jackson Ave., Tuscaloosa 35401 |
| Bibb | E. Kenneth Aycock, M.D. | DHO | 926-9702 | 105 Church St., Centreville 35042 |
| Greene | E. Kenneth Aycock, M.D. | DHO | 372-9361 | Box 269, Eutaw 35462 |
| Lamar | E. Kenneth Aycock, M.D. | DHO | 695-9195 | Box 548, Vernon 35592 |
| Pickens | E. Kenneth Aycock, M.D. | DHO | 367-8157 | Rt. 2, Box 202, Carrollton 35447 |
| Tuscaloosa | E. Kenneth Aycock, M.D. | DHO | 345-4131 | 1101 Jackson Ave., Tuscaloosa 35401 |
| Fayette | John Toppins | HSA | 932-5260 | Box 351, Fayette 35555 |
| Hale | J. P. Chism, Ed.D. | HSA | 624-3018 | Box 87, Greensboro 36744 |
| PUBLIC HEALTH AREA # 3 | Mary J. Tiller, M.D. | ASHO | 933-9110 | Box 2646, Birmingham 35202 |
| Blount | Mary Ann Pass, M.D. | LHO | 274-2120 | Box 96, Oneonta 35121 |
| Chilton | Mary Ann Pass, M.D. | LHO | 755-1287 | Box 147, Clanton 35045 |
| Jefferson | Mary J. Tiller, M.D. | LHO | 933-9110 | Box 2646, Birmingham 35202 |
| St. Clair | Mary Ann Pass, M.D. | LHO | 594-3171 | Box 249, Ashville 35953 |
| St. Clair | Mary Ann Pass, M.D. | LHO | 338-3357 | Box 627, Pell City 35125 |
| Shelby | Mary Ann Pass, M.D. | LHO | 669-3117 | Box 976, Columbiana 35051 |
| Walker | Mary Ann Pass, M.D. | LHO | 221-9775 | Box 690, Jasper 35501 |
| PUBLIC HEALTH AREA # 4 | Robert J. Henderson, M.D. | ASHO | 236-3274 | Box 488, Anniston 36202 |
| Calhoun | John Screws | HSA | 237-7523 | Box 488, Anniston 36202 |
| Chambers | Ellene Mitchell | HSA | 864-8834 | Box 319, LaFayette 36862 |
| Cherokee | Jim C. Russell | HSA | 927-3132 | Box 176, Centre 35960 |
| Clay | Fred W. Dauser | HSA | 354-2181 | Box 325, Ashland 36251 |
| Cleburne | John Screws | HSA | 463-2296 | Box 36, Heflin 36264 |
| Coosa | Fred W. Dauser | HSA | 377-4364 | Box 235, Rockford 35136 |
| DeKalb | Jim C. Russell | HSA | 845-1931 | Box 347, Fort Payne 35967 |
| Etowah | Jean Foster | HSA | 547-6311 | Box 555, Gadsden 35902 |
| Randolph | Ellene Mitchell | HSA | 863-8981 | 527 Price St., Roanoke 36274 |
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# INDEX

## A

A-95 review, 30
abnormal hemoglobin, 35, 47, 48
abortion clinics, 87, 88
accidental death, 3, 174, 175
accident prevention, 169
accountability, 13, 30
acid pH, 47
acidulated phosphate fluoride paste, 62
acquired immune deficiency syndrome, 95, 149, 162
activities, county health departments, 32
adhesive sealant, dental, 69
administrative, 10
  action, 9
  bodies, 9
  hearings, 9
adoption, 171, 172
adult seat belt usage, 167
advanced life support, 30
aerobic sewage disposal
  devices, 79, 80
  systems, 21, 79
aerosol-incuded sputum, 136
agglutination test, 48
  bacterial, 43
  tube, 43
Agriculture, U.S. Department of, 5, 115
Agriculture and Industries, Alabama Department of, 73, 74
AIDS, 95, 149, 162
Aid to Dependent Children, 170
air pollution control, 20
air pollution devices, 78
*Alabama Administrative Monthly*, 8
Alabama Administrative Procedure Act, 8
Alabama Advisory Council of Maternal and Child Health, 116
Alabama Association of Home Health Agencies, 163
Alabama Board of Medical Technicians Examiners, 35, 43
Alabama Board of Nursing, 155
Alabama Chapter of the Association of Practitioners of Infection Control 95
Alabama Cooperative Extension Services, 73
Alabama Dental Association, 61
Alabama Dental Auxiliary, 61, 62
Alabama Dental Foundation, 61
Alabama Department of Agriculture and Industries, 73, 74
Alabama Department of Conservation and Natural Resources, 83
Alabama Department of Corrections, 84
Alabama Environmental Health Association, 74, 75
Alabama Hypertension Program, 120
Alabama June Jam, 22
Alabama Medicaid Agency, 86
Alabama Nursing Home Association, 62
Alabama Outstanding Achievement Award, 170
Alabama Power Company, 22
*Alabama's Health*, 171
Alabama Smile Keeper Program (ASK), 61, 62
Alabama State Nurses Association, 15, 162, 163
Alabama State University, 10
Alabama Veterinary Association, 88
Alabama Water Improvement Commission, 4, 9
Albertville, 16
alcohol, 3
alkaline pH, 47
Alpine Bay Resort, 80
alternative sewage disposal systems, 20, 75, 79-80
ambulance, 30, 31
  drivers, 30
  helicopters, 31
  service operators, 30
  vehicles, 30
Ambulatory Care Center, UAH, 14, 15, 115
ambulatory surgical centers, 86, 88
amebiasis, 46
amino acids, 47
anemia
  iron deficiency, 115
  sickle cell, 47
animal bites, 17
animal brains, 35, 49, 50, 51
animal house, 35
Anniston, 61
Annual Food Sanitation Workshop, 81
Appalachian Regional Commission, 13, 19, 21, 89
arboviral, 17
arbovirus surveillance, 73, 74
architect/architectural services, 89
Area National Health Corps, 69
arteries, diseases of, 175
artists, 168, 169
asbestos, 20, 21, 23, 73
Ashland, 65
Ashville, 19
aspergillosis testing, 45
asistant attorneys general, 8
assistant state fire marshalls, 89
assistant state health officers, 13, 21, 24, 26, 29, 80, 120, 123, 178
Association of State and Territorial Health Officers/National Public Health Reporting System, 30
Association of Home Health Agencies, Alabama, 163
asymptomatic, 148
Athens, 16
Atlanta, 17
Attorney General, 8
Auburn, 65

Auburn University, 73, 120
Auburn University at Montgomery, 10, 63, 162
audiovisual equipment, 170
audit, 8, 80, 156
Autauga County, 24, 62, 65, 66, 74 Also see counties, all.
autoclaves, 36
automate, 167
automobile restraints, child, 167
autonomous, 13

B

baccalaureate degree, nurse, 155
bacterial agglutination test, 43
bacterial counts, 14, 20, 84
bacterial cultures, identification, 37
bacterial standards, 81, 83
Baldwin County, 6, 25, 61, 67, 69, 74, 75, 81 Also see counties, all.
Baptist Medical Center of Montgomery, 49
Barbour County, 24, 61, 66, 81, 129 Also see counties, all.
Basic Environmental Training Course, 74, 75
bat
  infestation, 74
  rabid, 19
bedridden patients, 162
bench training, 49
beta lactomase production, 39
Bibb County, 17, 18 61, 66, 81, 129 Also see counties, all.
Birmingham, 19, 20, 21, 49, 50, 62, 120, 129, 134, 135, 136, 156, 162, 163, 172
Birmingham Area Hospice, 21
Birmingham EMS, 30
birth certificates, 171, 172
births, 171, 172
  rate, 173
blastomycosis, 45
block grant, 4, 7, 17, 29-30, 114, 167
blood alcohol, 3
blood pressure, 113, 119, 120
  control, 119
  determinations, 113
blood testing, premarital, 35, 43
Blount County, 19, 66, 158 Also see counties, all.
Blue Cross-Blue Shield of Alabama, 156
Board of Adjustment, 9
Board of Corrections, 134, 135
boards of health,
  county/local, 9, 21, 22, 23, 24, 35
  state, 3, 8, 9, 35, 43, 83, 84, 87, 88
Board of Hearing Aid Dealers, 73
Board of Medical Technicians Examiners, 35, 43
Board of Nursing, Alabama, 155
*Bordetella pertusis*, 38, 94, 95, 101, 107
Boykin School, 65
branch laboratories, 35, 42
  Birmingham, 49-50, 54
  Decatur, 50, 55
  Dothan, 50, 56
  Mobile, 51, 57
breastfeeding, 15, 115
breath testing, 3
Brewton, 67
brochures, 170, 171
Brookley Field, 35, 51
Browns Ferry Nuclear Plant, 85, 170
brucella/brucellosis, 38, 94, 95, 97, 105
budget, 10, 13, 119
Building Commission, State, 78
building, new, 13, 17, 19
  laboratory, 35
bulk milk,
  haulers, 84
  tankers, 84
Bullock County, 23, 61, 62, 65, 66, 81, 129 Also see counties, all.
Bureau of Community Health Services (Federal), 29
Bureau of Epidemiology and Consultation, 93-110, 162
Bureau of General Sanitation, 13, 73-80
Bureau of Health Data Systems, 116, 167
Bureau of Inspection, 14, 78, 80-84
Bureau of Licensure and Certification, 35, 43, 73, 86-89, 96, 167
Bureau of Preventive Health Services, 119-151, 162
Bureau of Primary Prevention, 88, 167-171
Bureau of Public Health Nursing, 120, 155-163
Bureau of Radiological Health, 84-85, 170
Bureau of Vital Statistics, 167, 171-176
Butler County, 24, 66, 81 Also see counties, all.

C

Calhoun County, 21, 22, 66, 129, 139, 158 Also see counties, all.
Calhoun Junior College, 50
California Mastitis Test Kit, 84
camera-ready copy, 167
Camping Association, 84
camp regulations, 22, 84
cancer, 113, 174
  oral, 62
cancer detection, 14, 18, 23, 25, 29, 35, 113, 115, 150
  clinics, 15
Carbon Hill, 19, 63, 66
carcinogen, 74
car seat loaner program, 19
causes of death, 174, 175
Cedar Creek Reservoir, 13
Cedar Point, 83
cell count standards, direct microscopic, 84
Central Alabama Public Health Region, 19, 20
Centers for Disease Control (CDC), 17, 36, 42, 43, 46, 48, 49, 50, 95, 116, 125, 136
central nervous system diseases, 94

cerebrovascular diseases, 174, 175
Certificate of Immunization, 121
Certificate of Need, 89
certification, 3, 86
certified copies, 171, 172
certified laboratories, 44
certified state evaluation officers, 80
cesarean delivery, 173
Cessation of Operation notices, 14
Chambers County, 66 Also see counties, all.
Charles S. Roberts Veterinary Diagnostic Laboratory, 74
Chemical Test for Intoxication, 3
Cherokee County, 66, 81, 129 Also see counties, all.
Child Automobile Safety Seat Program, 167, 170
child bearing centers, 88
children entering school, 20
Child Restraint Program, 170
  1982 law, 170
Chilton County, 19, 62, 81, 129 Also see counties, all.
Choctaw County, 67 Also see counties, all.
Circular A-95 review, 30
Civilian Coordinating Council of the Wiregrass MAST, 31
civil rights, 9, 86
  reviews, 86
Clarke County, 61, 67 Also see counties, all.
Clay County, 21, 61, 65, 66, 129 Also see counties, all.
Clayton, 63
Clear Creek, 80
Clearinghouse OMB, 30
Cleburne County, 21, 81, 129, 158 Also see counties, all.
Cleburne County Hospital Board, 21
clients, indigent, 15, 24, 158
Clinical Laboratory Administration, 35-57, 94, 96, 136
Clinical Laboratories Improvement Act, 43, 87
clinical services, 17, 170
clinics, 14, 15, 16, 18, 20, 85, 113, 114, 116, 146, 149, 150, 170
  cancer detection, 18
  dental, 15, 18, 20, 65
  hours, 13
  maternity, 14, 15, 18, 19, 29
  outpatient, 16, 133, 136
  pediatric, 16
  satellite, 13, 14, 15, 24
  tuberculosis, 16, 18, 133, 135
  well child, 3, 15, 18, 19, 24, 113, 114, 116, 169
  WIC, 19
coalition groups, 30
Coffee County, 24, 66, 74, 162, 163, 170 Also see counties, all.
Coffee Memorial Hospital, 15
Colbert County, 14, 15, 16, 61, 66 Also see counties, all.
coliform
  counts, 14, 20, 42, 51
  standards, 83, 84
  violations, 84
Committee of Public Health, v, 3, 29, 30, 31, 87, 95, 96, 120, 136, 172
*Communicable Disease Report*, 96
communicable diseases, 3, 16, 18, 24, 96
community health centers, 29, 30, 155
Complement Fixation Test
  fungal, 45
  viral, 45
compliance, 14, 15, 82-83, 84, 87, 116
compliance buys, 115
comprehensive care, 162
comprehensive data and billing system, 20
computer, 171, 172
  indexing, 171
  needs, 29
  operations staff, 167
  programs, 167
  systems, 156, 167, 172
Conecuh County, 25, 67, 75, 155 Also see counties, all.
Conecuh Medical Clinic, 25
Conservation and Natural Resources, Alabama Department of, 83
consistency of ratings, See standardized.
*Consolidated Annual Report on State and Territorial Public Health Laboratories*, 35
consolidation, 19
construction, 13, 17, 19, 89
  local health departments, 13, 17, 19, 21
  Mobile laboratory, 35
consultant, 10, 24, 63, 73, 136, 162
consultation, 75, 86, 89
Consumer Product Safety Commission, 5, 167
container, single-service, 84
contingency funds, 21
continuing education, 15, 30, 31, 75, 120, 162, 163
  programs, 15
  units, 15, 162, 163
contracts, 8, 9, 14, 15, 24, 25, 29, 73, 81, 86, 115, 158
  hospitals, 132, 133, 134, 135
Cooperative Extension Service, Alabama, 73
Cooperative Health Statistics System, 173
coordinated clinic system, 24
coordinators, 21, 23, 80, 120
  physician, 136
Coosa County, 61, 65, 66, 129 Also see counties, all.
Coosada, 73
coroners, 172
Correctional Medical Systems, 135
correction of violations, 14, 80, 81
Corrections, Alabama Department of, 84
corrective action, 14
cost effective, 3
cost reduction, 167
counseling, 10, 14, 16, 30, 113, 151
  grief, 21
  rape, 30

counties, all, 26, 32, 40, 41, 44, 77, 78-79, 82-84, 97-104, 122-123, 130-131, 140-141, 157, 161, 178
county boards of health, 9, 21, 22, 23, 24, 35
county food sanitation programs, 80
county health department activities, 32
courts, federal and states, 9
Covington County, 23, 24, 67, 69, 74 Also see counties, all.
crab meat, 84
crab picking plants, 84
credentialing, 30
Crenshaw County, 23, 61, 65, 67, 81, 129 Also see counties, all.
cribs, portable, 169
Crippled Children, State, 15
cuffs, pediatric and obese (blood pressure), 120
Cullman, 61
Cullman County, 13, 16, 66 Also see counties, all.
cytology, 35

D

dairy, producer, 84
dairy and water evaluation officer, 42
Dale County, 23, 24, 67, 81, 129, 170 Also see counties, all.
Dallas County, 24, 25, 61, 67, 74, 81, 129 Also see counties, all.
data, 115, 116, 156, 173
  entry, 167
  service, 167
  terminal system, 171
day care, 16, 17, 23, 24, 94, 95, 121, 170
death certificate, 132, 133
deaths, 171, 172
Decatur, 15, 50, 61
  branch laboratory, 50, 55
Decatur General Hospital, 15
decentralization, 18
DeKalb County, 22, 66, 80 Also see counties, all.
delayed birth records, 171, 172
delinquent certificate report, 172
delinquent patients, 136
Dental Association, Alabama, 61
Dental Auxiliary, Alabama, 61, 62
Dental Foundation, Alabama, 61
dental health, 18, 20, 21, 29, 85
  Bureau of, 61-69
  clinic, 15, 20
  director, 15
  education, 18, 61-62, 63
  equipment, portable, 61, 69
  mobile unit, 65, 67, 68
  program, 15
dentists, 9, 62, 69
Department of Agriculture, U.S., 5, 115
Department of Agriculture and Industries, Alabama, 73, 74
Department of Conservation and Natural Resources, Alabama, 83
Department of Corrections, Alabama, 84
Department of Education, State, 81
Department of Environmental Management, 24, 75, 78, 80
Department of Health and Human Services, U.S., 19, 29, 30, 35, 69, 86, 89, 113, 170, 173
Department of Housing and Urban Development, U.S., 89
Department of Medical Genetics, USA, 25
Department of Pensions and Security, 23, 25, 121, 156, 162, 170
detection, early, 113
Diagnostic Laboratory, State, 84
diagnostic services, 113
dialysis facilities/treatment centers, renal, 86, 87, 88, 89
diphtheria, 38, 94, 95, 104, 110, 124
disbursements, 4-5, 6-7, 8
discipline, progressive, 10
disciplines of service, 156
disease control measures, 96
Disease and Disability Program, 158, 159, 160
Disease Registries Division, 93, 96
diseases of the arteries, 175
display stations, 167
Division of Community Sanitation, 74
Division of Hypertension, 119-120, 162
Division of Provider Reimbursement, 156
Division of Venereal Disease Control, 136-151, 162
divorces, 171, 172, 175
  rate, 175
"Documentation for Reimbursement," 163
domiciliary, 86, 87, 88, 89
  new rules, 88
Dothan, 50, 61
  branch laboratory, 50, 56
driving while intoxicated, 169
drug resistant study, 136
drug susceptibility, 49
drug therapy, TB, 133, 136

E

East Alabama EMS, 30
education/educate, 15, 16, 18, 19, 29, 89, 120, 136, 149, 167
  continuing, 15, 30, 31, 75, 120, 162, 163
  dental, 18, 61-62, 63
  health, 15, 17, 22, 162
  nutrition, 15, 18, 115
  program, hospital based, 123
Education, State Department of, 81
educational
  leave, 75
  material, 63
  program, 149, 162, 167
educator, health, 15, 18, 21, 22, 120, 149
Elba, 66
electrophoresis, 47
Eliza Coffee Memorial Hospital, 15, 88, 134, 135

ELISA, 47
Elmore County, 67, 73, 74 Also see counties, all.
emergency exercises, nuclear, 170
"Emergency Expenditure to Meet National Needs Act of 1983" (Jobs Bill), 30, 155 Also see Jobs Bill.
Emergency Management Agency, Federal (FEMA), 85
Emergency Management Plan, 30
  Radiation, 85
Emergency Medical Services, 29, 30-31
emergency medical technician, 30, 31
Emory University Nurse Practitioner Training Program, 15
EMS Advisory Board, State, 31
EMS systems, 30, 31
encephalitis, 17, 20, 75, 94, 95, 97
  Eastern equine, 74, 75
  St. Louis, 74
  Western equine, 74
enforcement, 18, 21, 75, 77, 84
  law, 3
engineering services, 89
Engineers and Land Surveyors Board, 171
environmental
  activities, 17
  committee, 24
  health, 17, 19, 73, 96
  program, 13, 14, 19-20
  regulations, 17
  staff, 13, 17, 19, 81
Environmental Health Association, 74, 75
Environmental Health Services, 13-14, 17, 19, 20, 21-22, 23-24
environmentalist, 9, 10, 13, 14, 17, 21, 22, 23, 24, 75, 79, 80, 81, 84
Environmental Management, Department of, 24, 75, 78, 80
Environmental Protection Agency, 49, 50
Environmental Training Course, Basic, 74, 75
epidemiologic, 149
  information, exchange, 139
  investigation, 139
  results, 142, 149
epidemiological team, 16, 162
epidemiology, 18, 29, 121, 162
Epidemiology and Consultation, Bureau of, 93-110, 162
*Escherchia coli*, 83, 84
epizootic, 75
EPSDT, 14, 18, 113, 116
Escambia County, 67, 81 Also see counties, all.
Etowah County, 21, 22, 61, 66, 74, 129, 158 Also see counties, all.
Equal Employment Opportunity Commission, 10
evaluate, 79, 89
evaluation, 75, 80, 115, 116
evaluation officer, 42, 49, 80
Examiners of Public Accounts, State, 8
exhibits/displays, 167, 170
extrapulmonary, TB, 125, 129

F

facilities
  health care, 86, 87, 88, 89
  summer feeding, 81
fairs, 61, 149, 170
Family Health Administration, 14, 35, 111-116, 120, 167, 170
family planning, 3, 14, 17, 18, 19, 20, 29, 113-114, 150
  notify parents, teenagers, 14
Family Practice Center, 25
Farley Nuclear Plant, 85, 170
Farmers Home Administration, 89
Fayette County, 17, 18, 66, 81 Also see counties, all.
Federal Emergency Management Agency, 85
federal programs, 3
fee, 24, 171, 172
  bill, local, 19
  for service, 22, 158, 161
FEMA, 85
fertility rates, 173
fetal deaths, 171, 172, 175
  rates, 175
fetal monitoring, 22
field investigators, 136
films, 170
Finance Department, State, 171
Finance Division, Health Department, 3-8, 167, 171
financial management system, 19
financial transactions, 3
fire marshalls, assistant state, 89
fireworks, 169
Florala, 67
Florence, 15, 134, 135
Florida, 48
fluorescent antibody procedure
  direct, 38
  indirect, 47
fluorescent microscopy, 46
Fluorescent Treponemal Antibody Absorption test, 46
Fluoride Brush-in Program, 62
fluoridation, 7, 19, 24, 63, 65
Fluoride Mouthrinse Program, 20, 64-65, 66-67
fluoride mouthrinse, 18, 20, 64, 65
  sodium, 18, 64
fluorosis, 69
fly control, 74
"Focus on Diabetes," 162
Food and Drug Administration, 49, 50, 51, 80, 81, 88, 89, 167
foodborne illness, 42, 94
food certification courses, 21, 24
  handlers, 24
food establishments, 14, 20, 24, 80, 81
food inspection, 14, 17, 19, 29, 81
food inspectors, certified, 14
Food Managers Training Course, 81

food regulations, 18, 19, 24, 80
food sanitation, 13, 24, 80-84
  violations, 80, 81
  Workshop, 81
food service, 14, 20, 78, 81
  school, 81
food vouchers, 18
formula, infant, 115
Fort Morgan, 73
Fort Payne, 22
Fort Rucker, 31
Franklin County, 13, 14, 15, 16, 66 Also see counties, all.
free-standing child bearing centers, 88
frozen dessert, 81, 82-83
  plant, 84
  samples, 17, 20, 81, 84
  soft serve, 20
full care, 119
funds/funding, 3, 4-5, 6-7, 8, 13, 15, 17, 19, 20, 21, 22, 23, 25, 29, 30, 48, 69, 74, 86, 114, 167, 168, 171
  block grant, 4, 7, 17, 29, 30, 114, 167
  contingency, 21
  disbursement of, 4-5, 6-7, 8
  federal, 4-5, 6-7, 8, 29, 86, 89, 169
  grant, 13, 14, 17, 19, 23, 25, 29, 30, 89, 116, 155
  local, 5, 6-7, 13
  source, 4-5, 6-7, 8, 13, 15, 115, 167
  WIC, 3, 5, 7, 15, 115
funeral homes, 172
fungi, 48-49

## G

Gadsden, 21, 134, 135
gamma globulin, 19
garbage pickup
  canister, 21
  door-to-door, 21
general immunology, 43
General Sanitation, Bureau of, 13, 73-80
Genetics/Birth Defects Task Force, 25
Geneva, 67
Geneva County, 24, 67, 74, 75, 81, 129, 155 Also see counties, all.
George C. Wallace Community College, 50
geriatric patient, 62, 88
Girls Club, 50
Glencoe, 73
globin chain, 47
gonococcal pelvic inflammatory disease (GPID), 16, 18, 148, 149
gonorrhea, 3, 16, 20, 23, 25, 35, 36, 39, 47, 50, 94, 95, 98, 113, 136, 139, 140-141, 143-151
  PPNG, 3, 23, 25, 39, 51, 146-147, 148, 149
  rate, 143, 144, 146
  screening program, 149
Goodwater, 65
Goosepond Acres Subdivision, 13
Grand Bay, 74
granny midwives, 23
grant, 13, 14, 17, 19, 23, 25, 29, 30, 89, 116, 155
  block, 4, 7, 17, 29, 30, 114, 167
Greene County, 17, 18, 61, 66, 81 Also see counties, all.
grief counseling, 21
growth inhibitors, 84
Gulf Coast, 75
Gulf Coast District Health Department, 24, 32, 178

## H

Hacoda community, 75
Hale County, 17, 18, 66, 129 Also see counties, all.
handicapped students, 63
handicapping conditions, 113, 114, 115
Head Start, 61-62, 63, 69
Health and Human Services, U.S. Department of, 19, 29, 30, 35, 69, 86, 89, 113, 170, 173
health care
  delivery, 29
  facilities, 29, 86, 87, 88, 89
  providers, 86
Health Care Financing Administration, 156, 158, 162
Health Data Systems, Bureau of, 116, 167
Health Department organization, vi, 177
health education, 15, 17, 22, 162
  community, 15
  hypertension, 120
health educator, 15, 18, 21, 22, 120, 149
health fairs, 61, 149, 170
Health Maintenance Organizations, 87, 88
health occupations, 61
health officers, 10, 15, 16, 21, 24, 26, 29, 79, 80, 178
  local/county, 23, 29, 178
  state, 8, 21, 29, 73, 81, 83
    assistant, 13, 21, 24, 26, 29, 80, 120, 121, 123, 178
  state and territorial, 30
Health Personnel Division, 167
Health Planning and Development Agency, State, 89
health promotion, 3, 29, 167, 169
Health Resources Administration, 29
Health Services Corps, 29, 69
heart disease, 174, 175
helicopter, 31
hemagglutination test
  indirect, 46
  inhibition, 46, 74
  treponema, 47
hemoglobin/hematocrits, 47, 113
hemoglobinopathies, 48
Henager, 22, 80
Henry County, 61, 129 Also see counties, all.
hepatitis, 16, 19, 20, 94, 95, 98, 99
herpes, 45, 149

High Blood Pressure Month, 120
Highland Home, 65
high risk, 15, 18, 19, 21, 22, 94, 114, 116, 134, 136
High Risk Home Visitation, 22
Highway and Traffic Safety, Office of, 5, 31, 167
histoplasmosis, 45, 49, 73, 94, 95, 99, 107
homebound patients, 18, 25, 162
home health, 5
  agencies, 86, 87
  aides, 157, 158
  care, 3, 19, 21, 149
  grant, 23
  patients, 19, 159
  program, 18, 19, 21, 24, 25, 30, 155
  services, 22, 25, 29, 155-162
  visits, 16, 18, 160
homemakers training, 25, 156, 162
home visits, 16, 18, 22, 136, 160
homicide, 175
hospices, 21, 86, 88
hospitals, 9, 16, 21, 24, 37, 39, 85, 86, 87, 88, 89, 94, 115, 125, 132, 133, 134, 135, 136, 149, 150, 172
  board, 19
  infection control, 95, 121
  patient stay, 134
  pharmacy, 30
hospital based education program, 123
hotel/motel, 17, 29, 84
house confined patients, 162
Housing and Urban Development, U.S. Department of, 89
Houston County, 23, 24, 67, 74, 81, 138, 158 Also see counties, all.
Human Diploid Cell Rabies Vaccine, 93-94
Huntsville, 14, 15 16, 115, 134, 135
hypertension, 119-120, 162
  conference, 120
  program, 25, 29, 120
hypothyroid, 47

I

IABC/Montgomery, 170
IBM System 34, 167
ice cream, soft serve, 14, 20
identification badges, 13
IgM antibodies, 46
immune globulin prophylaxis, 16, 94
immune status, 46
immunity, level of, 121, 125
immunization, 3, 4, 5, 6, 15, 16, 18, 22, 24, 29, 120-125
  certificates, 16
  coordinator, 21, 23, 120
  exemption, 16
  law, school, 15
  levels, 3, 15, 20, 22, 23, 24, 125
  requirements, 16, 120
  status, 15
  surveys, 23, 121, 122-123, 124
immunofluorescence test, indirect, 46
immunosorben assay, 47
  enzyme linked, 47
Implied Consent Law, 3
Indiana University, 120
indigent clients, 15, 24, 158
infant deaths/mortality, 3, 113, 114, 175
  rates, 175, 176
Infant Mortality Reduction Program, 22
Infant Follow-Along Program, 25
infected persons, TB, 133
infection control, 95, 121
influenza, 45, 175
  vaccine, 19, 24
inpatient, 6, 25, 115, 134, 135, 150
  contract, 25
in-service program, 15
inspection, 13, 14, 17, 19, 29, 81, 84, 85, 86, 87, 89
  consistency of ratings, 14
  frequency, 17, 84
  standardized, 24, 80
  uniformity of scoring, 14
  vendors, mobile, 22
  X-ray, 85
Inspection, Bureau of, 14, 78, 80-84
inspectors, 13, 14 intermediate care facilities, 86, 87
internal audit, 8
Interstate Shellfish Sanitation Conference, 51
intravenous fluids, 30
ionizing radiation, 84

J

Jackson, 63
Jackson County, 13, 15, 16, 61, 66 Also see counties, all.
Jacksonville, 61
jails, 17, 21, 84, 94
Jefferson County, 8, 9, 19, 20-21, 66, 74, 81, 85, 94, 129, 136, 138, 155, 171 Also see counties, all.
Jobs Bill, 15, 19, 21, 22, 25, 30, 114, 115, 155, 156
joint care, 119
Joint Commission of Accreditation of Hospitals, 89
Julia Tutwiler Facility, 135
June Jam, Alabama, 22

K

Kawasaki's disease, 95
Kentucky, 48
Kilby Correctional Facility, 135
kindergarten, 16
Kiwanis club, 15

L

laboratory, 17, 74, 84, 133

- independent, 86, 87, 88
- Mobile, new, 35
- State Health Department, 17, 35-57, 94, 96, 136

Laboratory Methods for Diagnosing Rabies, 50
Lamar County, 17, 18, 66, 81 Also see counties, all.
Larva-dex, 74
Lauderdale County, 13, 14, 15, 16, 62, 129 Also see counties, all.
law enforcement, 3
Lawrence County, 13, 14, 15, 16, 61, 66 Also see counties, all.
Lay Lake, 80
lay off, 13
Lee County, 24, 65, 67, 74 Also see counties, all.
legal
- action, 79
- advice, 9
- assistance, 116
- Division, 8-9, 13
- notice, 14
  - form, 24

legionella *(Legionella pneumophila)*, 38, 46, 94, 95, 99, 107
legislation, 86, 162
legislative action, 8
Legislature, 35, 115
legitimations, 171, 172
liaison, 93, 169
library, 171
license, 30, 73, 85
- probational, 87
- renewal, 30
- temporary, 87

licensure, 29, 30, 73, 88
- examination, 30
- inspection, 87
- revocation, 9

Licensure and Certification, Bureau of, 35, 43, 73, 86-89, 96, 167
Licensure Advisory Board, 87
life expectancy, 3
Life Safety Code, 89
Limestone County, 13, 14, 15, 16, 73, 129 Also see counties, all.
Lineville, 65
live births, 173, 175
loan guarantees, 89
loan program, safety seat, 170
local registrars, 172
Logan Martin Lake, 80
long-term care facility, 86
Louisiana, 83
low birth weight, 113
Lowenstein-Jensen medium, 36
Lowndes County, 23, 61, 62, 67, 115, 129 Also see counties, all.
Lowndes County Health Services, 115
lymphatic (TB), 125

## M

Macon county, 65, 67 Also see counties, all.
Madison County, 14, 15, 16, 66, 74, 81, 115, 129, 138 Also see counties, all.
malaria, 42
malignancy, 62
malignant neoplasms, 174, 175
management systems, 116
Mantoux tuberculin skin test, 136
manuscripts, 167
Marengo County, See counties, all.
Marion, 67
Marion County, 14, 15, 16, 66 Also see counties, all.
marketing programs, 156
marriages, 171, 172, 175
- rate, 175

Marshall County, 13, 14, 15, 16 Also see counties, all.
mass media, 167
MAST, 31
mastitis test
- California, 84
- Wisconsin, 84

Maternal and Child Health, 14, 17, 20, 114, 169
maternal mortality, 113, 115, 175
maternity
- clinics, 14, 15, 18, 19, 29
- homes, 87, 88
- patients, 14, 15, 19, 21
- services, 14, 113

Maxwell Air Force Base, 69
McInnis School, 63
measles, 94, 95, 100, 107, 120, 121, 124
media, 35, 36
- mass, 167
- news, 78

Medicaid, 14, 15, 18, 24, 29, 51, 86, 89, 116, 158, 159, 160
- screening, 24

medical,
- community, 13
- control, 30, 31
- Control Committee, State, 31
- devices, 88, 167
  - Problem Reporting System, 167
- Genetics, Department of, 25
- intervention, 119
- records personnel, 172
- record system, 17, 19, 24, 29, 121, 123
- social services/workers, 157, 158
- society, 19
- supervision, 13, 133, 136
- technology students, 49

Medicare, 29, 86, 89, 120, 158, 159, 160, 162
medication
- patients, 119, 120

visits, 119
meningitis, 20, 94, 95, 96, 100, 101, 108, 125
mental institutions, 132
microfilming, 171
microhemagglutination assay, 46, 48
microimmunodiffusion test, 45
midwives,
  granny, 23
  nurse, 9
Military Assistance to Safety and Traffic (MAST), 31
Millbrook, 63
minorities, 9
  recruiting, 10
Mississippi, 83
Missouri, 48
Mitchell-Hollingsworth Annex, 88
Mobile, 35, 51, 134, 135, 136
  branch laboratory, 35, 51
Mobile Bay, 83
Mobile County, 8, 9, 24, 25, 61, 67, 74, 116, 129, 136, 139, 142, 147, 155 Also see counties, all.
mobile food vendors, 22
mobile unit (dental) 65, 67, 68
  clinician, 65
Model Camp Sanitation Regulations, 22, 84
Modified Thayer-Martin plates, 35
Monroe County, 25, 61, 67, 69 Also see counties, all.
Montgomery, 10, 49, 50, 73, 75, 134, 135, 162
Montgomery County, 23, 24, 61, 62, 73, 74, 129 Also see counties, all.
Morgan County, 14, 16 Also see counties, all.
mortality, 173, 175
  rates, 174, 175, 176
mosquito, 17, 20, 74-75
  surveillance, 20
  trapping, 17
mosquito-borne illnesses, 20
Mosquito and Rodent Control Division, 74
motel/hotel, 74, 84
mumps, 94, 95, 101, 107, 124
music park, 22

N

natality, 173
National Conference of Interstate Milk Shipments, 49
National Fire Protection Association, 89
National Health Services Corps, 29, 69
National Motor Speedway, 22
National Registry of EMTs, 31
National Rural Primary Care Association, 29
*Neisseria gonorrhoeae*, 47, 49, 50, 51 Also see gonorrhea.
Neonatal Hypothyroid Screening Program, 47
Neonatal Intensive Care Unit, 25
neonatal mortality, 175
neutral sodium fluoride, 18, 64
New Orleans, 51
news releases, 78, 170
New York City Health Laboratory, 49
noncertified copies, 171, 172
noncompliant patient (TB), 16
North Alabama EMS, 30
North Alabama Perinatal Advisory Committee, 14
North Carolina, 48
Northwest Alabama Regional Health Department, 13, 14, 15, 16, 32, 178
notifiable diseases, 96
nuclear power plant emergency exercises, 170
nurse, 9, 15, 18, 19, 22, 25, 61, 115, 116, 120, 136, 149, 169
  obstetrics/gynecology, 15, 25
  practitioner, 15, 155
  midwife, 9
Nurses Association, Alabama State, 15, 162, 163
nursing, 21, 22, 50
  directors, 21, 162, 163
  skilled care, 18, 157
  skills, 15
  staff, 15
nursing homes, 9, 62, 86, 87, 88, 89, 94, 95, 136
Nursing Home Association, Alabama, 62
nutrition, 63, 115
  education, 15, 18, 115
  information, 15
nutritional risk, 18, 115
nutritionist, 9, 15, 115, 116
Nutrition Surveillance Network, CDC, 116

O

obstetrics-gynecology, 15
obstetric nurse clinician, 25
Occupant Safety Program, 167
occupational hazards, 93
occupational therapy, 157, 158
Office of Attorney General, 8
Office of Direct Reimbursement, 156
Office of Highway and Traffic Safety, 5, 31, 167
official notices, 84
Oklahoma, 48
on-line display stations, 167
on-site, 13, 19, 35, 49, 77, 86, 89, 116
  sewage disposal, 13, 19, 20, 21, 29, 75, 77, 78, 79, 80
Operation 14, immunization, 24
Opp, 61, 67
oral hygiene, 62, 63
  kits, 61
oral presentations, 169
Orange Beach, 63
organisms, 37-38, 42, 84
Orphan Drug Bill, 25
outbreaks, 121
outpatients, 16, 86, 115, 133, 136, 150
  clinics, 133, 136

  rehabilitation, 86
Outstanding Achievement Award, Alabama, 170
Oxford, 22, 61
oysters
  growing areas, 83
  raw, 94

P

Pap test, 113
Paradise Cove Subdivision, 80
paramedics, 30, 31
  examination, 30, 31
  training, 31
passenger safety, 169
paste up copy, 168
paternity, 171
pathogens, 48
  enteric, 39
patient, 14, 22, 23, 119, 120, 135, 162
  education, 149
  encounter form, 20
  geriatric, 62, 88
  homebound, 18, 25, 162
  home health care, 19, 159
  income guidelines, 25
  indigent, 15, 24, 158
  inpatient, 6, 25, 115, 134, 135, 150
  maternity, 14, 15, 19, 21, 22
  noncompliant, 16
  outpatient, 16, 86, 115, 133, 136, 150
pediatric, 15, 16, 120
Ped-O-Jet technique, 136
Pelham, 19
pelvic examination, 113
penal institutions, 132
penicillinase-producing *Neisseria gonorrhoeae* (PPNG), 3, 23, 25, 39, 51, 146-147, 148, 149
penicillin blood agar, 36
penicillin resistant gonorrhea, 3, 23, 51
Pensions and Security, Department of, 23, 25, 121, 156, 162, 170
percolation rates, 13
Perinatal Advisory Committee
  North Alabama, 14
  Region IV, 22
  Regional, 24
perinatal project/program, 18, 19, 29, 115
Perry County, 61, 67, 129 Also see counties, all.
personal health services, 14-17, 18, 19, 20, 21, 22, 24, 25
Personnel
  Division of, 9-10, 167
  lay off, 13
  State, 9, 171
pertussis, 38, 94, 95, 101, 107, 121, 124
pet program, visiting, 88
pharmacy, 30
phenylalanine level, 46
photographs, 169
photographic services, 169
physical therapists, 86, 87
  assistants, 158
physical therapy, 157, 158
physicians, 9, 13, 14, 15, 16, 19, 20, 22, 23, 25, 30, 35, 85, 94, 113, 115, 132, 133, 136, 146, 150, 158, 172
Pickens County, 17, 18, 61, 66, 81 Also see counties, all.
Piedmont, 63, 66, 73
pigeons, 17
Pike County, See counties, all.
pilot project/program, 17, 24, 62, 158
PKU, 46
plan reviews, 78
playpens, dropside, 169
pleural (TB), 125
pneumonia, 45, 175
polio/poliomyelitis, 45, 94, 95, 104, 110, 124
polypeptide chain, 47
postpartum, 15, 114, 123
Practitioners of Infection Control, the Association of, 95
Prattville, 65
preexposure immunization, rabies, 94
pregnancy, 115
  teenage, 113
prehospital care, 30
premarital blood testing, 35, 43
premature babies, 113
prenatal, 14, 18
  care, 14, 15, 25, 114
preschool immunization, 123
preventable diseases, vaccine, 3, 16, 20, 120, 121
preventive health, 18, 65, 68, 113, 114, 155, 167
Preventive Health and Health Services Block Grant, 29, 30, 167
Preventive Health Services, Bureau of, 119-151, 162
Prichard, 63
primary care, 113
Primary Drug Resistance Study, 49
Primary Enforcement Regulations, 77
primary enforcement responsibility, 77
Primary Prevention, Bureau of, 88, 167-171
printed material, 169
printing, 167, 168, 169
  reduction in, 168
prison, 29, 84, 94
probate
  judge, 43
  office, 24
"Problem Oriented Recording," 162
proficiency testing, 35, 42, 43, 46, 49, 50, 51
program effectiveness, 29
program-oriented, 14
program performance reporting system, 29
Program Priority Committee, 29

Project HELP, 162
*Promoting Health/Preventing Disease: Objectives for the Nation,* 29
promotion, health, 3, 29, 167, 169
prophylaxis, 68, 94
  immune globulin, 16, 94
proration, 9, 10
Prospective Payment System, 86
protocols, 88, 116, 136
protozoa, 42
psychiatric units, 86
public health areas, 13-26, 149
Public Health Area I, 13-16, 26, 32, 61, 66, 77, 78, 79, 80, 81, 97-104, 113, 114, 115, 122, 124, 130, 140, 151, 178
Public Health Area II, 17-18, 26, 32, 61, 66, 77, 78, 81, 97-104, 113, 114, 115, 122, 124, 129, 130, 140, 151, 178
Public Health Area III, 19-21, 26, 32. 61, 77, 78, 79, 81, 97-104, 113, 114, 115, 122, 124, 129, 130, 140, 151, 178
Public Health Area IV, 21-23, 26, 32, 61, 66, 77, 78, 79, 81, 84, 97-104, 113, 114, 115, 122, 124, 129, 130, 140, 151, 178
Public Health Area V, 23-24, 26, 32, 61, 66-67, 77, 78, 79, 81, 97-104, 113, 114, 115, 123, 124, 129, 131, 141, 149, 151, 178
Public Health Area VI, 24-25, 26, 32, 61, 63, 67, 77, 78-79, 81, 97-104, 113, 114, 115, 123, 124, 129, 131, 141, 151, 178
Public Health Nursing, Bureau of, 120, 155-163
Public Health Services, U.S., 20, 125
  Region IV, 125
public service announcements, 170
public sewer project, 13
public water supply, 17, 19, 24, 75
pulmonary diseases, 129, 175

## Q

quality assurance, 116, 155
quality control, 30, 43, 49

## R

rabies, 9, 17, 19, 20, 35, 39, 40, 41, 49, 50, 51, 93, 94, 95, 101
Radiation Emergency Plan, State, 85
radioactive materials, 85
Radiological Health, Bureau of, 29, 84-85, 170
radio communication network, 14
radio system, two-way, 14
Randolph County 22, 23, 66, 81, 155 Also see counties, all.
rape prevention and counseling, 30
Reactor Surveillance Registry, 143
reagents, 35, 36
recalcitrant patients, 135
Red Bay, 13, 15
reference laboratory, 37, 48, 49
referral, 14, 15
refugee grant program, 29
Region IV of DHHS, 19, 113
Region IV FDA State Rating and Evaluation Officers Seminar, 49
registrar, local, 172
regulations, 14, 17, 18, 43, 77, 79, 80, 84, 86, 87
  camp, 22, 84
  federal, 86, 116
  food, 18, 19, 24, 80
  premarital blood test, 43
  sewage disposal, 75, 80
  state, 86, 116
  subdivision, 22, 75
Regulations Governing On-site Sewage Disposal Systems, 80
rehabilitation, 3
  centers, 86, 87, 88
  comprehensive outpatient facilities, 86
reimbursement rate, 156
renal
  dialysis facilities, 86, 87
  treatment centers, 88, 89
renovation, 13, 19, 21, 89
repeat infections, 148, 149
reporting source
  tuberculosis, 132, 133
  venereal diseases, 146
Representatives, U.S. House of, 156
research project, 88
respiratory therapy, 158
respite care units, 88
revenue
  reduced, 19
  sharing, 13
*Revised Guidelines for the Chemoprophylaxis of Contacts of Meningococcal Meningitis,* 96
Reye syndrome, 94, 95, 102, 108
Rh factor, 35, 48, 50
rickettsia, 45
Riverside Development, 80
Roanoke, 66
Robertsdale, 74
Roberts Veterinary Laboratory, 74
Rockford, 65
rough copy, 168
rubella, 16, 35, 46, 47, 48, 94, 95, 102, 109, 121, 124
*Rules, Regulations and Standards: Independent Clinical Laboratories,* 35, 43
rural communities, 29
rural health, 15, 30
  clinics, 86, 87
Rural Health Initiatives, 155
Rural High Risk Pregnancy Project, 19
Russell County, 61, 67, 69, 155 Also see counties, all.
Russellville, 15

**S**

Safe State, 73
St. Clair County, 19, 61, 80, 81 Also see counties, all.
salmonella/salmonellosis, 38, 39, 42, 94, 95, 102, 109
samples, 42, 73, 74, 83, 84
  dairy, 49, 50, 51
  frozen dessert, 17, 20, 81, 84
  milk, 84
  mosquito ova, 20
  serum, 20
  shellfish, 51, 83
  unsatisfactory, 14
  water, 17, 49, 50, 51, 83, 84
sanitation, 14, 73-80, 80-81
satellite clinics, 13, 14, 15, 24
school, 3, 15, 61, 65, 73, 75, 78, 79, 81, 136
school boards, local, 79
School of Dentistry, University of Alabama, 61
School of Nursing, AUM, 162
School of Nursing, Troy State, 155
School of Public Health, UAB, 22, 162
school projects, 78
school systems, 61, 65, 73, 120
Scottsboro, 13
seafood, 83-84
sealant, dental adhesive, 21, 69
seat belt, 167, 170
Securities Commission, State, 171
Selma, 73, 75
seminars, vital statistics, 172
septic tanks, 13, 17, 20, 21, 24, 75, 80
  manufacturers, 14, 21, 24, 75, 80
service units, 119
sewage disposal, 13, 21, 80
  on-site systems, 13, 19, 20, 21, 29, 75, 77, 78, 79, 80
  alternative, 20, 75, 79, 80
  aerobic, 21, 79, 80
  septic tanks, 13, 17, 20, 21, 24, 75, 80
sewage systems, 80
  failing/failure of, 13, 75, 77, 78, 79
  illegal, 13
sexually transmitted diseases, 13, 17, 18, 20, 25, 143, 149. Also see gonorrhea, syphilis, venereal disease.
"Sexually-Transmitted Diseases," 162
Shelby County, 19, 61, 66, 74, 80, 170 Also see counties, all.
Shelby Medical Center, 19
shellfish, 51, 83
shigella/shigellosis, 38, 39, 94, 95, 103, 109
Short-course TB Therapy Study, 136
sickle cell, 47, 113
skilled nursing care, 18
skin testing, 133, 136
slide presentation, 116, 163, 169, 170
Social Security Disability, 120
soft tissue examination (oral), 62
soil characteristics, 80
solid waste, 4, 19, 75-80
source of funds, 4-5, 6-7, 8, 13, 15, 115, 167
source of reports
  TB 132, 133
  VD, 146
Southeast Alabama EMS, 30
Southern Rural Health Consortium, 15
South Sauty Creek, 80
Southside, 63
Southwest Alabama EMS, 30
specimen identification, 35
speech therapy, 157, 158
sputum specimens, aerosol induction, 23, 136
staff development programs, 162
standardized/consistency, 14, 80
  inspection, 14, 17, 19, 24
  interpretation of regulations, 17, 19, 80
standard plate count criteria, 84
standards of practice (patient care) 162
  federal, 86
  state, 86
Stanton, 66
state agencies, 171
state and territorial health officers, 30
State Board of Corrections, 134, 135
State Board of Health, 3, 8, 9, 35, 43, 83, 84, 87, 88
State Building Commission, 78
State Committee of Public Health, v, 3, 29, 30, 31, 87, 95, 96, 120, 136, 172
State Crippled Children, 15
State Department of Education, 81
State Diagnostic Laboratory, 84
State EMS Advisory Board, 31
State Examiners of Public Accounts, 8
State Finance Department, 171
State Medical Control Committee, 31
State Office Building, 170
State Personnel, 9, 171
State Radiation Emergency Plan, 85
State Securities Commission, 171
State TB Medical Advisory Council, 135
Statewide Emergency Management Plan, 30
"STD Education Workshop in Classroom and Community Education," 149
"STD Workshop in Epidemiologic Forms and Procedures," 149
stroke, 162
Subcommittee of Health, U.S., 156
subdivisions, 13, 17, 20, 24, 75, 77
  approved, 17, 76
  Goosepond Acres, 13
  illegal, 13
  review, 19, 75
subdivision regulations, 22, 75
  primary enforcement, 22, 77

subunits, 156, 157, 158, 159, 160, 161, 162
sudden infant death syndrome (SIDS), 113
suicide, 175
Sumiton, 19, 63
Summerdale, 63
Sumter County, 16 Also see counties, all.
sunburns, 169
Sunset Committee, 35
Supplemental Security Income, 120
support services, 119, 120
surgical centers, ambulatory, 86, 88
survey, 23, 24, 49, 69, 73, 77, 78, 79, 80, 81, 84, 86, 121, 122-123, 124
swimming pool inspections, 17
syphilis, 3, 16, 18, 20, 23, 24, 25, 35, 43, 44, 46, 47, 48, 49, 50, 51, 94, 95, 103, 113, 136-143, 146, 149, 151 Also see sexually transmitted diseases and venereal diseases.
  congenital, 16, 138, 139
  rate, 138, 139
syphilis serology, 43-44, 50

T

Talladega County, 21, 22, 23, 66, 80, 81, 155 Also see counties, all.
Tallapoosa County, 22, 66 Also see counties, all.
task force, 25, 119
teenage birth statistics, 173
teenage patients, 14
teenage pregnancy, 113
Tennessee, 48
Tennessee State Health Department, 42
terminally ill, 21
tetanus, 94, 95, 103, 109, 124
tetanus-diphtheria booster, 24
Texas, 83
Thayer-Martin, 35, 36
therapeutic and preventive services, 65, 68
therapeutic benefits, 88
therapeutic touch, 168
therapy
  drug, 133, 136
  preventive, 134
  supervised, 16, 133
Thomasville, 61, 62, 67
tickler system, 123
timed persistent harassment (TPH), 73, 96
"Time Management Mini Workshop," 162
tornadoes, 22
Town Creek Rural Health Clinic, 14
training, 50, 75, 89, 116
  program, 10, 13, 15
Tri-County District Health Services, 14, 16, 32, 50, 178
Troy State University, 81
  School of Nursing, 155
tube agglutination test, 43
"Tuberculin Skin Testing Guidelines," 136
tuberculosis, 6, 16, 18, 19, 20, 23, 25, 29, 48, 49, 94, 95, 103, 109, 125-136, 149
  Alabama's rank 126
  case rates, 125, 128, 129, 132, 133
  county ranks, 130-131
  correctional facilities, 134, 135
  drug resistant study, 136
  drug susceptibility, 49
  drugs/drug therapy, 16, 133, 136
  examination as job requirement, 134
  extrapulmonary, 125, 129
  field representatives, 23, 136
  hospital inpatient, 6, 25, 134, 135
  Medical Advisory Council, State TB, 135
  new cases, 18, 125, 126, 127, 129, 130-131, 132, 135
  nurse activities, 23, 136
  outpatients, 16, 133, 136
  preventive therapy, 134
  protocols, 136
  recalcitrant patients, 135
  Short-course TB Therapy Study, 136
  skin test, 23, 133, 136
  source of reports, 132, 133
  sputa/sputum, 16, 23, 136
  supervised therapy, 16, 133
  X-ray, 16, 136
Tuberculosis Division, 36, 48, 125-136
TB Medical Advisory Council, 135
tuberculosis meningitis, 125
Tuscaloosa, 17, 18, 74, 134, 135
Tuscaloosa County, 17, 18, 61, 66, 73, 74, 129, 138 Also see counties, all.
Tuskegee Institute, 10
Tutwiler Facility, 135
typeset/typesetting, 168

U

ultrasound scanning, 22
Unified Medical Record, 17, 19, 24, 29, 121, 123
  pilot project, 17, 29
"Uniform Accounting and Periodic Reporting System for County Health Departments," 8
uniform disease control measures, 96
unit cost, 29, 119
United States
  Centers for Disease Control, 5, 17, 36, 42, 43, 46, 48, 49, 50, 116, 125, 136
  Consumer Product Safety Commission 5, 167
  Department of Agriculture, 5, 115
  Department of Housing and Urban Development, 89
  Environmental Protection Agency, 4, 49, 50
  Farmers Home Administration, 89
  Food and Drug Administration, 49, 50, 51, 80, 81, 88, 89, 167
  Health and Human Services, 19, 29, 30, 35, 69, 86, 89, 113, 170, 173

  House of Representatives, 156
  Public Health services, 5, 20, 125
United States Pharmacopeia, 167
University Hospitals, 21
University of Alabama, 73
  School of Dentistry, 61
University of Alabama-Birmingham, 19, 22, 162, 172
  School of Public Health, 22, 162
University of Alabama-Huntsville, 14, 15, 115
University of South Alabama Medical Center, 25, 51
university schools of nursing, 155
unlicensed nursing facilities, 87, 88
urban rat control, 6, 17, 74

V

vaccine, 16, 94
  accountability, 16
  hepatitis, 20, 94
  histories, 20
  influenza (flu), 19, 24
  preventable diseases, 3, 16, 20, 120, 121
  rabies, 93-94
  supply, 16
  usage, 121, 124
VDRL slide test, 43, 48, 49, 50, 51
vector-borne diseases, 73
vector control, 6, 29, 73-75
Vector Control Conference, 73
vectors
  dengue, 20
  encephalitis, 17
  yellow fever, 20
vendor, 22, 116
vendor fraud detection, 115
venereal disease, 5, 6, 19, 20, 24, 29, 136-151
  morbidity, 136
Venereal Disease Control Program, 25, 136-151, 167
Veterinary Association, Alabama, 88
violations, correction, 14, 80, 81
viral meningitis, 20
visiting pet programs, 88
visits, home, 16, 18, 22, 136, 160
vital records, 18, 171
vital statistics, 4, 5, 6, 9, 17, 18
  Bureau of, 167, 171-176
  seminars, 172
vouchers, 25, 171
  food, 18
  WIC, 18, 25, 171

W

Walker County, 19, 61, 66, 81, 155 Also see counties, all.
Washington County, 67, 81 Also see counties, all.
Washington, D.C., 156
waste, 4, 9, 75-80 Also see sewage disposal.
waterborne illness, 94
Water Improvement Commission, Alabama, 4, 9
water purification system, 36
water safety, 169
water samples, 17, 49, 50, 51, 83, 84
water supplies, public, 17, 24, 75, 78
water systems, 63
Ways and Means Committee, 156
well child clinics, 3, 15, 18, 19, 24, 113, 114, 116, 169
West Alabama District Health Department, 17, 32, 66, 77, 178
West Alabama EMS, 30
Western Mental Health Center, 21
WIC, 3, 5, 7, 9, 14, 15, 19, 21, 23, 24, 25, 29, 115, 116, 149, 170, 171 Also see Women, Infants and Children Supplemental Food Program.
  case load, 15, 21
  funds, 3, 5, 7, 15, 115
  nutrition, 18, 25, 29
  vouchers, 18, 25, 171
Wilcox County, 24 Also see counties, all.
Winston County, 13, 14, 15, 16, 61, 62, 66, 81 Also see counties, all.
Wiregrass, 75
Wiregrass MAST, 31
Winconsin Mastitis Test, 84
Women, Infants and Children Supplemental Food Program, 3, 9, 14, 15, 18, 29, 115, 170 Also see WIC.
work force, 9
working women, 15
work week, four day, 13

X

X-ray, 16, 18, 20, 85, 86, 136

Z

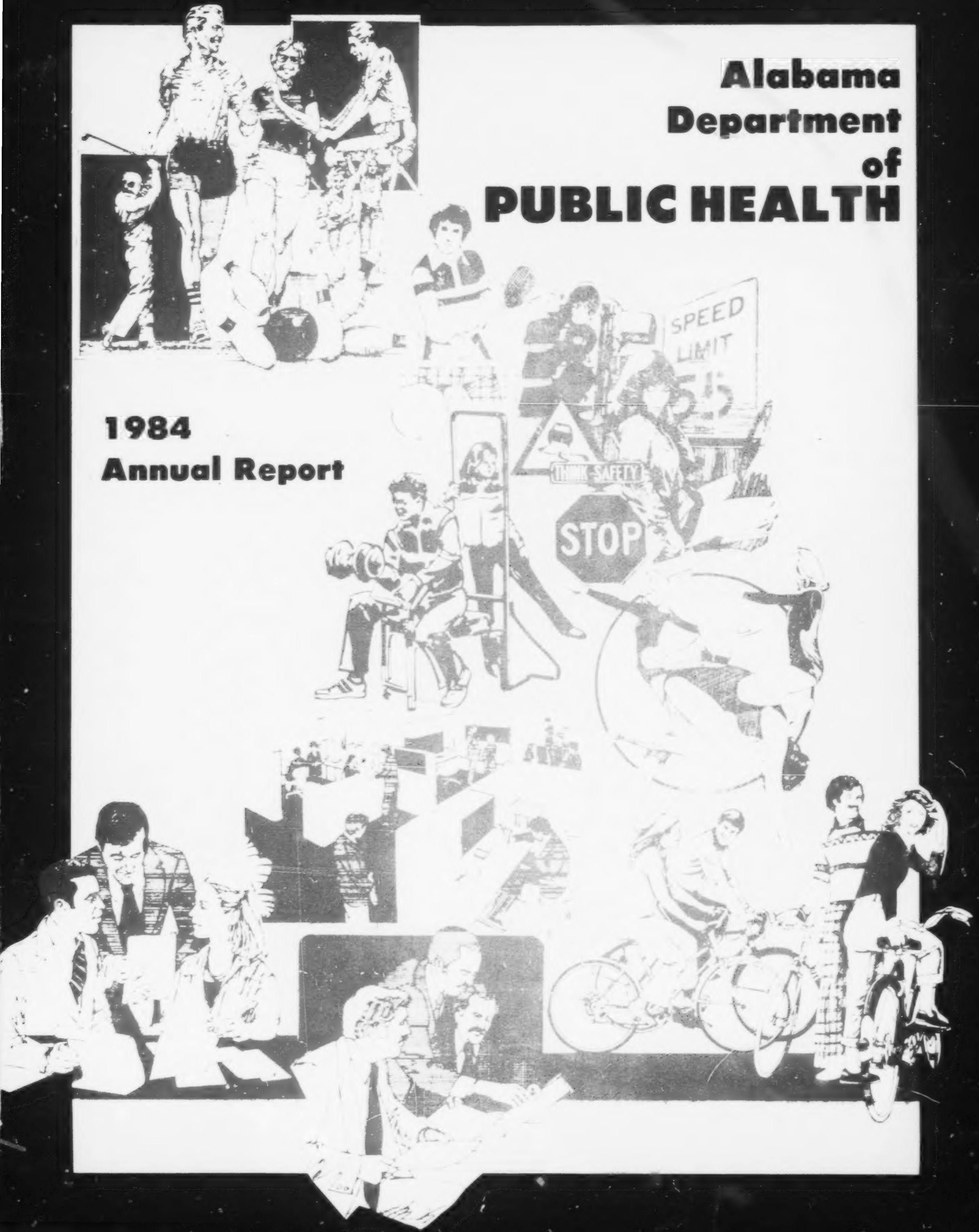
zoonotic diseases, 93

Prepared by
ALABAMA DEPARTMENT OF PUBLIC HEALTH
ADPH-P-A-15/Rev. 10-84

S0175-3

# Alabama Department of PUBLIC HEALTH

## 1984 Annual Report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# TABLE OF CONTENTS

PAGE

LETTER OF TRANSMITTAL .......... iv

STATE COMMITTEE OF PUBLIC HEALTH .......... v

ASSISTANT STATE HEALTH OFFICERS AND DIRECTORS OF ADMINISTRATIONS AND BUREAUS .......... vi

BUREAU OF ADMINISTRATION .......... 1
- Division of Finance .......... 3
- Division of Intoxication Standards, Testing and Control .......... 9
- Internal Audit Division .......... 10
- Legal Division .......... 10
- Personnel and Training Services Division .......... 10

PUBLIC HEALTH AREAS .......... 13
- Public Health Area I .......... 15
- Public Health Area II .......... 16
- Public Health Area III .......... 20
- Public Health Area IV .......... 24
- Public Health Area V .......... 27
- Public Health Area VI .......... 29

BUREAU OF AREA HEALTH SERVICES .......... 33
- Division of Community Health Services Coordination .......... 35
- Division of Emergency Medical Services .......... 36
- County Health Department Activities .......... 38

CLINICAL LABORATORY ADMINISTRATION .......... 39
- Administrative Support Services Division .......... 41
- Division of Scientific Services .......... 42
- Clerical Services Division .......... 42

- Bureau of Microbiology .......... 42
  - General Bacteriology Division .......... 42
  - Enteric Bacteriology Division .......... 44
  - GC Screening Division .......... 44
  - Parasitology Division .......... 45
  - Rabies Division .......... 45
  - Sanitary Bacteriology Division .......... 48
  - Division of Rh .......... 48

- Bureau of Serology .......... 48
  - Syphilis Serology Division .......... 48

PAGE

Special Division 51
Metabolic Division 52
Indirect Fluorescent Antibody (IFA) Division 54

Bureau of Tuberculosis and Mycology 55
Tuberculosis Division 55
Mycology Division 55

Branch Laboratories 56
Birmingham Branch Laboratory 56
Decatur Branch Laboratory 57
Dotnan Branch Laboratory 57
Mobile Branch Laboratory 57

BUREAU OF DENTAL HEALTH 65
Division of Education and Prevention 67
Division of Dental Health Services 71
Surveys and Community Involvement 72

ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION 79
Bureau of General Sanitation 81
Division of Waste Disposal 81
Division of Vector Control 86

Bureau of Inspection 88
Division of Food 88
Division of Milk 93
Division of Lodging 94

Bureau of Radiological Health 96
Division of Radioactive Materials Licensing 96
Division of Radioactive Materials Compliance 97
Division of X-ray Compliance 97
Division of Emergency Planning 97

Bureau of Licensure and Certification 97
Certification Division 97
Field Services Division 98
Licensure Division 100
Plans and Construction Division 100

BUREAU OF EPIDEMIOLOGY AND CONSULTATION 103

FAMILY HEALTH ADMINISTRATION 123
Bureau of Management Information Systems 125

PAGE

Bureau of Planning and Development ........ 125
Bureau of Quality Assurance ........ 125
Bureau of Resource Management ........ 126

BUREAU OF PREVENTIVE HEALTH SERVICES ........ 129

Division of Hypertension ........ 131
Division of Immunization ........ 132
Division of Tuberculosis Control ........ 137
Division of Venereal Disease Control ........ 149

BUREAU OF PUBLIC HEALTH NURSING ........ 165

Division of Home Health Services ........ 167
Division of Support Services ........ 172
Division of Planning, Training and Evaluation ........ 175

SPECIAL SERVICES ADMINISTRATION ........ 177

Bureau of Health Data Systems ........ 179
Data Services Division ........ 179
Technical Services Division ........ 179

Bureau of Primary Prevention ........ 179
Division of Graphic Communication ........ 179
Division of Health Education ........ 181
Division of Health Information ........ 182

Bureau of Vital Statistics ........ 183
Division of Microfilm Services ........ 183
Division of Record Services ........ 183
Division of Registration Services ........ 184
Division of Statistical Services ........ 184

ASSISTANT STATE HEALTH OFFICERS, LOCAL HEALTH OFFICERS AND HEALTH SERVICE ADMINISTRATORS ........ 188

State of Alabama

**DEPARTMENT OF PUBLIC HEALTH**

State Office Building
Montgomery, Alabama 36130

IRA L. MYERS, M.D.
STATE HEALTH OFFICER

The Honorable George C. Wallace
Governor of Alabama
State Capitol
Montgomery, Alabama 36130

Dear Governor Wallace:

Public health has a direct impact upon all citizens' quality of life in Alabama. Over the years public health has witnessed many successes in positive health, communicable disease programs, sanitation and numerous other pursuits. However, diligence is necessary to maintain these advances.

Health department clinics served nearly a third of all women who gave birth in 1984 in Alabama. By increasing access to quality health care we hope to reduce the state's infant mortality rate, which is one of the highest in the nation. To continue to enjoy the successes of the past in controlling infectious diseases and to capitalize on recent improvements in chronic disease control, we must devote energy and resources to these areas. Protection of the food supply, the water supply and the environment must be maintained.

This report on our programs at the local and state levels reflects our progress in 1984. We appreciate the support we have received from you in furtherance of our goal of providing quality health services to all Alabamians, and request your support in the future.

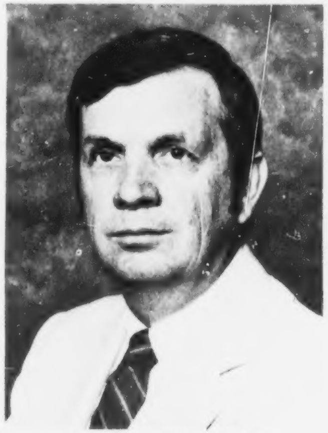
Sincerely,

Ira L. Myers

Ira L. Myers, M.D.
State Health Officer

ILM

# MEMBERS
# STATE COMMITTEE OF PUBLIC HEALTH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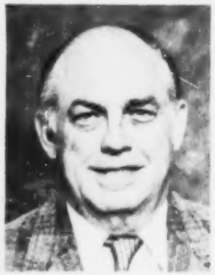
Secretary
Montgomery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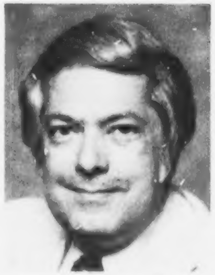
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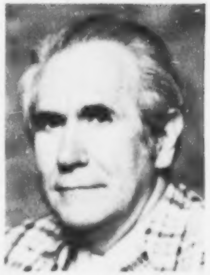
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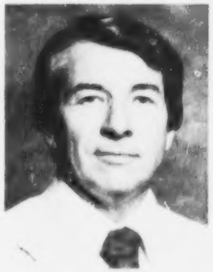
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Environmental Health
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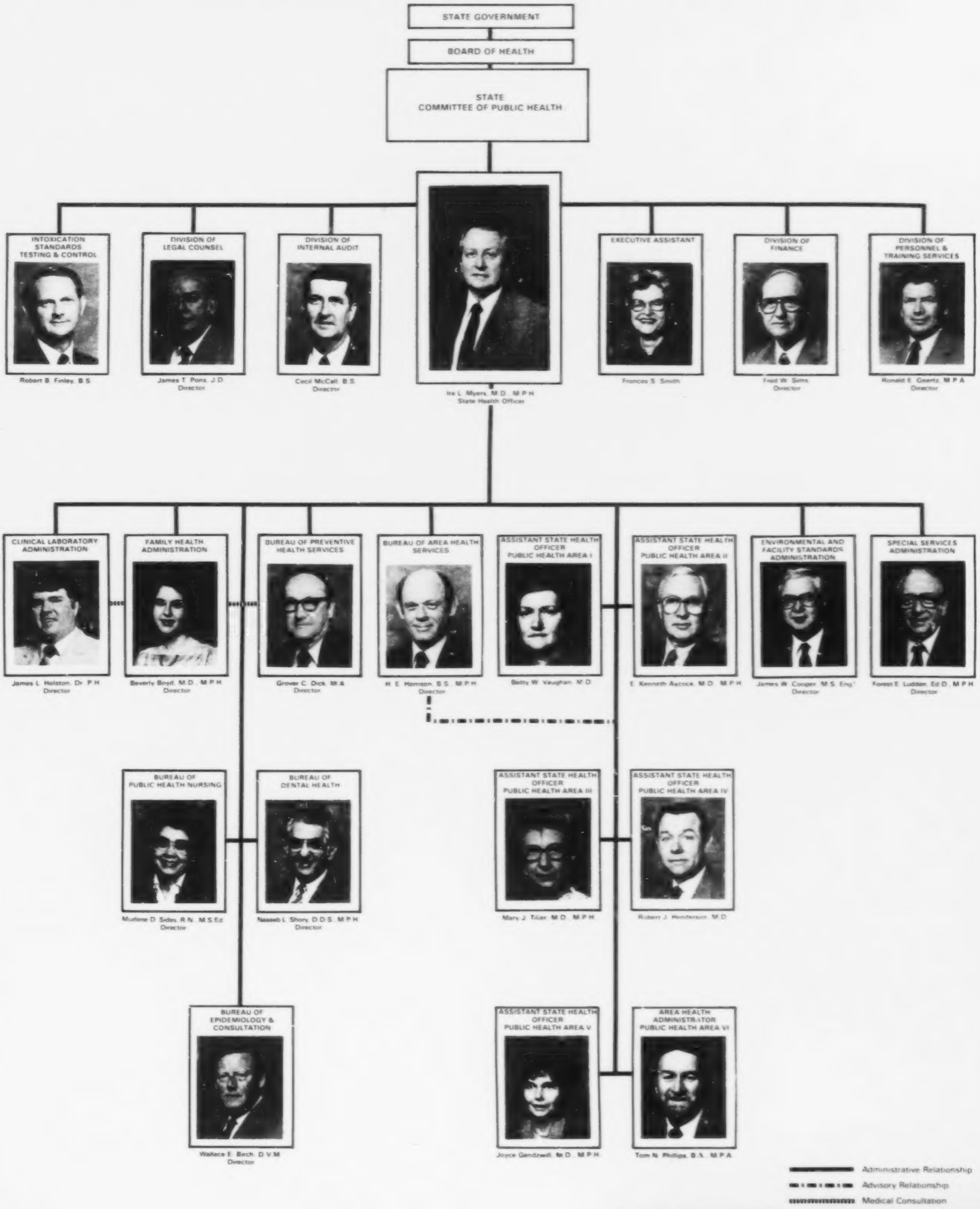
William S. Fuller
Birmingham

Council on Prevention of
Disease & Medical Care
Myra J. Downs, R.N., M.S.N.
Gadsden

# ORGANIZATION OF THE ALABAMA DEPARTMENT OF PUBLIC HEALTH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DIVISION OF PERSONNEL & TRAINING SERVICES
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Director
SPECIAL SERVICES ADMINISTRATION
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BUREAU OF PUBLIC HEALTH NURSING
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Director
BUREAU OF DENTAL HEALTH
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Wallace E. Birch, D.V.M.
Director
ASSISTANT STATE HEALTH OFFICER PUBLIC HEALTH AREA V
Joyce Gendzwill, M.D., M.P.H.
AREA HEALTH ADMINISTRATOR PUBLIC HEALTH AREA VI
Tom N. Phillips, B.A., M.P.A.
━━━━ Administrative Relationship
━ · ━ · ━ Advisory Relationship
┅┅┅┅ Medical Consultation

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# Administration

# BUREAU OF ADMINISTRATION

The Alabama Department of Public Health continues to hold the protection of the health of all Alabamians as its primary concern. During 1984 the department's emphasis on preventive care and positive personal health activities continued. It is evident that preventing disease today can promote wellness for tomorrow; and faced with limited resources for public health, the most efficient use of every tax dollar is also a priority.

The economic benefits of prevention have been demonstrated in recent years in areas such as family planning, fluoridation and immunization. The effectiveness of health education to motivate Alabamians to adopt healthier lifestyles has been promoted. The many benefits of preventive screening programs and the Supplemental Food Program for Women, Infants and Children also are promising.

The increased population of aged Alabamians is accompanied by a larger number of people suffering from chronic health conditions. Changes in federal guidelines have restricted the amount of health care costs which can be paid by Medicare. These restrictions helped lead to an increase in the number of people served in the 63 county home health programs and a 29 percent increase in the number of visits made to home health patients.

Alabama's infant mortality rate remains one of the highest in the nation. The department is striving to reduce this rate by increasing access to quality health care. Nearly a third of Alabama women were served by the 54 county health departments with maternal and child health clinics. Even so, 12 percent of births in the state were to women who received inadequate prenatal care.

Alabama experienced its lowest birth rate ever recorded during 1984. At 14.3 per 1,000 population, Alabama's rate was lower than the national average. While teenage birth rates have declined, about one in five births in the state was to a teenage mother.

Dramatic improvements have been made in preventing dreaded diseases such as diphtheria and polio. But the alarming shortages and the increased cost of the diphtheria, tetanus, pertussis vaccine in 1984 threatens these advances.

The Clinical Laboratory Administration added new and specialized diagnostic testing procedures for public health programs to support the investigation and surveillance of communicable and infectious diseases. Plans were developed for new laboratory facilities in Mobile and Dothan to help improve services.

Increases in the incidence of the acquired immunodeficiency syndrome and of animal rabies in Alabama created concern in the public health community during 1984.

The cost accounting system begun in 1980 has helped to determine the cost for each unit of service provided by the department. Employees have joined the drive to reduce costs by submitting cost-saving suggestions. Two county health department employees were named 1984 recipients of the State Employees Suggestion Awards for their ideas.

Administratively, no permanent organizational changes were effected during the year. In February the State Health Planning and Development Agency was transferred to the department by executive order; however, it remained under the department's supervision only a short time before it again became a separate agency.

Public health protection of the food supply, the water supply and the environment must continue. To enjoy the successes of the past with regard to the control of infectious diseases and to capitalize on improvements in chronic disease control the department must continue to devote resources to establish successful activities.

By emphasizing preventive care the employees of the Alabama Department of Public Health are providing quality health care for the citizens of Alabama.

## Division of Finance

During 1984 the Division of Finance continued to perform its responsibilities of budgeting, accounting, purchasing, securing supplies and approving payment of bills. As the fiscal office of the Alabama Department of Public Health the division conducts all fiscal transactions for the state health department and for the county health departments.

It is the duty of the division to determine that all expenditures are within the budget. Thorough accounting records are kept of the receipt and expenditure of allocated funds. All supplies and equipment needed to perform public health duties are requisitioned and processed through the division. The division also processes payroll records and channels reimbursement for travel expenses. The cost accounting system in which each employee contributes data is another responsibility of the division.

Table 1-1 summarizes the receipts, disbursements and balances by special sources of funds for the fiscal year ending September 30, 1984. The total 1984 budget represented a 14.4 percent increase over the 1983 budget. Table 1-2 summarizes program disbursement by the source of funds—state, federal, local or others. Disbursements are

### TABLE 1-1
### SUMMARY OF RECEIPTS, DISBURSEMENTS AND BALANCES BY SPECIAL SOURCE OF FUNDS
### FISCAL YEAR 1984

| Source | Balance 10-1-83 | Receipts | Expended | Balance 9-30-84 |
|---|---|---|---|---|
| **STATE AND REVENUE FUNDS** | | | | |
| General Fund—Health | 233,951.46 | 15,532,619.00 | 15,450,720.01 | 315,850.45 |
| ASETF Perinatal | 303,461.36 | 791,706.00 | 897,887.15 | 197,280.21 |
| ASETF Immunization | 21,090.32 | 200,000.00 | 219,669.28 | 1,421.04 |
| ASETF School Inspection | —0— | 195,794.00 | 195,794.00 | —0— |
| **Total** | 558,503.14 | 16,720,119.00 | 16,764,070.44 | 514,551.70 |
| 2¢ Cigarette Tax | 315,101.40 | 2,034,451.26 | 2,030,070.22 | 319,482.44 |
| 1¢ Cigarette Tax | 155,328.25 | 879,848.60 | 965,959.36 | 69,217.49 |
| Radiation Safety | 1,885.00 | 48,484.00 | —0— | 50,369.00 |
| Hospital Licenses | 74,535.38 | 211,601.71 | 108,191.56 | 177,945.53 |
| Vital Statistics | 792,046.76 | 1,136,415.57 | 1,274,771.29 | 653,691.04 |
| Emergency Medical Services | 103,269.40 | 34,380.00 | 117,587.81 | 20,061.59 |
| **Total** | 1,442,166.19 | 4,345,181.14 | 4,496,580.24 | 1,290,767.09 |
| Regulatory Boards | | | | |
| Hearing Aid Licenses | 11,150.75 | 9,809.61 | 5,037.57 | 15,922.79 |
| **TOTAL STATE AND REVENUE FUNDS** | 2,083,309.67 | 21,075,109.75 | 21,265,688.25 | 1,821,241.58 |
| **FEDERAL FUNDS** | | | | |
| Family Planning | 753,883.24 | 3,525,243.93 | 4,009,041.44 | 270,085.73 |
| Maternal and Child Health | 756,240.70 | 8,662,957.46 | 8,994,650.38 | 424,547.78 |
| Preventive Health Block | 138,822.90 | 1,220,463.48 | 1,329,773.14 | 29,513.24 |
| WIC Food Program | 146,520.25 | 29,406,174.57 | 29,262,098.74 | 290,596.08 |
| Home Health | 475,692.10 | 1,995,697.00 | 1,361,683.18 | 1,109,705.92 |
| SSA Certification | 165,963.86 | 289,772.54 | 606,582.73 | (150,846.33) |
| Venereal Disease | (11,785.23) | 531,057.58 | 546,318.54 | (27,046.19) |
| Immunization | 25,405.90 | 319,318.07 | 351,749.28 | (7,025.31) |
| Tuberculosis | —0— | 43,600.00 | 45,010.39 | (1,410.39) |
| Refugee | 915.03 | 14,000.00 | 14,720.75 | 194.28 |
| Risk Reduction | 2,591.84 | (2,591.84) | —0— | —0— |
| **FEDERAL CONTRACTS** | | | | |
| National Health Service Corps | —0— | —0— | 6,343.91 | (6,343.91) |
| AEC Radiological Health | 17,250.78 | 20,199.00 | 18,030.51 | 19,419.27 |
| NIH Cancer | 5,019.06 | —0— | 164.00 | 4,855.06 |
| FDA Medical Device | —0— | 17,000.00 | 16,358.83 | 641.17 |
| Black Lung | 1,028.30 | 50,700.00 | 41,643.80 | 10,084.50 |
| Chambers-Cherokee ARC | —0— | 37,996.00 | 28,582.03 | 9,413.97 |
| FDA Food Inspection | —0— | 65,906.50 | 65,390.62 | 515.88 |
| Vital Statistics—NCHS | 1,679.99 | 109,158.68 | 72,843.33 | 37,995.34 |
| Revolving Fund | (223,868.22) | 2,340.00 | (78,498.89) | (143,029.33) |
| **TOTAL FEDERAL FUNDS** | 2,255,360.50 | 46,308,992.97 | 46,692,486.71 | 1,871,866.76 |

## TABLE 1-1 (continued)
## SUMMARY OF RECEIPTS, DISBURSEMENTS AND BALANCES BY SPECIAL SOURCE OF FUNDS
## FISCAL YEAR 1984

| Source | Balance 10-1-83 | Receipts | Expended | Balance 9-30-84 |
|---|---|---|---|---|
| **LOCAL AND MISCELLANEOUS FUNDS** | | | | |
| Dental Contracts | 53,947.08 | 66,556.23 | 72,977.07 | 47,526.24 |
| Lab-Rubella | 25,842.65 | 1,310.00 | 24,896.16 | 2,256.49 |
| Lab-MCH | 117,146.47 | 125,000.00 | 124,050.27 | 118,096.20 |
| Lab-Medicaid | 44,688.31 | 39,300.98 | 29,810.84 | 54,178.45 |
| Lab-Safe Water Contract | 11,670.98 | 118,125.00 | 4,795.67 | 125,000.31 |
| Lab-Training | 2,829.05 | —0— | —0— | 2,829.05 |
| Indirect Cost Earned | 1,403,198.02 | 2,023,555.37 | 1,906,740.15 | 1,520,013.24 |
| OHTS Contracts | (18,613.18) | 109,609.40 | 123,617.35 | (32,621.13) |
| Consumer Product Safety | 17,806.00 | —0— | 10,657.48 | 7,148.52 |
| Vital Statistics | 111,517.27 | 94,420.51 | 165,665.06 | 40,272.72 |
| Miscellaneous Reimbursement | (290,654.72) | 840,905.06 | 1,041,992.53 | (491,742.19) |
| Health Nuclear Monitoring | 26,159.21 | 163,444.36 | 111,097.09 | 78,506.48 |
| Local Appropriations | 3,489,683.18 | *33,635,533.81 | *32,382,129.06 | 4,743,087.93 |
| **Total** | 4,995,220.32 | 37,217,760.72 | 35,998,428.73 | 6,214,552.31 |
| **GRAND TOTAL** | $9,333,890.49 | $104,601,863.44 | $103,956,603.69 | $9,907,660.65 |

*Includes $20,050,004.00 in funds collected and expended locally.

## TABLE 1-2
## SUMMARY OF PROGRAM DISBURSEMENTS BY GENERAL SOURCE OF FUNDS
## FISCAL YEAR 1984

| Program | All Funds | State and Revenue Funds | Federal Funds | Local and Other Funds |
|---|---|---|---|---|
| **ADMINISTRATION** | | | | |
| Executive | 319,794.37 | 319,710.97 | 83.40 | —0— |
| General Services | 1,522,862.57 | 668,700.98 | 144,214.97 | 709,946.62 |
| Finance | 661,942.02 | 661,959.36 | —0— | (17.34) |
| Internal Audit | 139,689.28 | 139,689.28 | —0— | —0— |
| Legal Services | 116,037.92 | 116,037.92 | —0— | —0— |
| Personnel | 232,898.90 | 232,884.36 | —0— | 14.54 |
| **Total** | 2,993,225.06 | 2,138,982.87 | 144,298.37 | 709,943.82 |
| **SPECIAL SERVICES** | | | | |
| Administration | 71,155.35 | —0— | —0— | 71,155.35 |
| Vital Statistics | 966,360.81 | 893,517.48 | 72,843.33 | —0— |
| Primary Prevention | 529,094.76 | 366,856.95 | 59,310.35 | 102,927.46 |
| Health Data | 1,078,407.09 | 1,050,902.10 | —0— | 27,504.99 |
| **Total** | 2,645,018.01 | 2,311,276.53 | 132,153.68 | 201,587.80 |
| **HEALTH SUPPORT SERVICES** | | | | |
| Public Health Area Support | 232,804.28 | 148,241.05 | 73,579.19 | 10,984.04 |
| Public Health Nursing | 439,120.33 | 157,256.35 | 281,294.47 | 569.51 |
| Public Health Area I | 129,989.95 | 129,989.95 | —0— | —0— |
| Public Health Area II | 107,670.04 | 107,670.04 | —0— | —0— |
| Public Health Area III | 93,575.00 | 93,575.00 | —0— | —0— |
| Public Health Area IV | 165,543.05 | 165,543.05 | —0— | —0— |
| Public Health Area V | 138,238.12 | 138,238.12 | —0— | —0— |
| Public Health Area VI | 43,988.62 | 43,988.62 | —0— | —0— |
| Rape Prevention | 45,723.35 | —0— | 45,723.35 | —0— |
| Rodent Control—Tuscaloosa | 342.36 | —0— | 342.36 | —0— |
| Rodent Control—Mobile | 25,000.00 | —0— | 25,000.00 | —0— |
| Black Lung | 41,643.80 | —0— | 41,643.80 | —0— |
| National Health Service Corps | 6,343.91 | —0— | 6,343.91 | —0— |
| Baldwin County Home Health | 97.80 | —0— | 97.80 | —0— |
| Clinical Laboratories | 4,283,979.42 | 3,664,220.05 | 423,214.58 | 196,544.79 |
| **Total** | 5,754,060.03 | 4,648,722.23 | 897,239.46 | 208,098.34 |
| **LICENSING AND REGULATION** | | | | |
| Emergency Medical Services | 408,266.32 | 158,521.68 | 205,897.27 | 43,847.37 |
| Licensure and Certification | 1,781,492.79 | 108,191.56 | 607,355.72 | 1,065,945.51 |
| **Total** | 2,189,759.11 | 266,713.24 | 813,252.99 | 1,109,792.88 |
| **ENVIRONMENTAL HEALTH** | | | | |
| Administration | 130,210.48 | 113,956.77 | —0— | 16,253.71 |
| General Sanitation | 280,563.77 | 280,563.77 | —0— | —0— |
| Vector Control | 36,968.86 | —0— | 36,968.86 | —0— |
| Inspection | 826,449.79 | 760,800.02 | 65,390.62 | 259.15 |
| Radiological Health | 491,394.65 | 360,199.36 | 17,503.39 | 113,691.90 |
| **Total** | 1,765,587.55 | 1,515,519.92 | 119,862.87 | 130,204.76 |

## TABLE 1-2 (continued)
## SUMMARY OF PROGRAM DISBURSEMENTS BY GENERAL SOURCE OF FUNDS
## FISCAL YEAR 1984

| Program | All Funds | State and Revenue Funds | Federal Funds | Local and Other Funds |
|---|---|---|---|---|
| **PREVENTIVE HEALTH SERVICES** | | | | |
| Administration | 72,440.54 | 72,440.54 | —0— | —0— |
| Epidemiology | 160,568.64 | 160,568.64 | —0— | —0— |
| Hypertension | 354,948.19 | 61,736.53 | 293,211.66 | —0— |
| Immunization | 712,189.34 | 360,440.06 | 351,749.28 | —0— |
| Tuberculosis Control | 1,713,020.28 | 1,067,394.63 | 45,010.39 | 600,615.26 |
| Hospitalization of TB Patients | 483,450.00 | 483,450.00 | —0— | —0— |
| Venereal Disease Control | 1,120,709.79 | 1,471.91 | 546,235.14 | 573,002.74 |
| **Total** | 4,617,326.78 | 2,207,502.31 | 1,236,206.47 | 1,173,618.00 |
| **PERSONAL HEALTH SUPPORT** | | | | |
| Family Planning | 4,361,166.14 | —0— | 4,361,166.44 | —0— |
| Women, Infants and Children Food | 29,262,625.86 | —0— | 29,262,625.86 | —0— |
| Maternal and Child Health | | | | |
| Block Grant—Transfer to Crippled Children | 2,150,000.00 | —0— | 2,150,000.00 | —0 |
| Administration | 472,989.22 | —0— | 472,989.22 | —0— |
| Area Support | 2,807,448.51 | 164,668.25 | 2,642,780.26 | —0— |
| Special Project Contracts | 3,723,203.25 | 728,336.06 | 2,994,867.19 | —0— |
| MR Contracts | 377,728.85 | —0— | 377,728.85 | —0— |
| Cancer Detection | 302,035.56 | 292,035.56 | —0— | 10,000.00 |
| Dental Health | 324,155.96 | 251,178.89 | —0— | 72,977.07 |
| Dental Fluoridation | 52,519.34 | —0— | 52,519.34 | —0— |
| **Total** | 43,833,872.99 | 1,436,218.76 | 42,314,677.16 | 82,977.07 |
| **REGULATORY BOARDS—Hearing Aid** | 5,037.57 | 5,037.57 | —0— | —0— |
| **REVOLVING FUNDS** | (69,215.19) | 4,882.84 | (74,175.03) | 77.00 |
| **LOCAL HEALTH UNITS** | 40,221,931.78 | 6,730,831.98 | 1,108,970.74 | 32,382,129.06* |
| **GRAND TOTAL** | $103,956,603.69 | $21,265,688.25 | $46,692,486.71 | $35,998,428.73 |

*Includes $20,050,004.00 in funds collected and expended locally

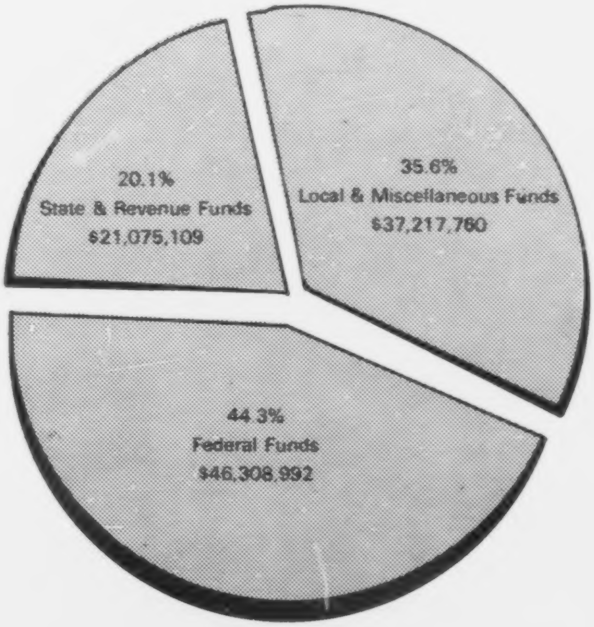
listed by object in Table 1-3.

Graph 1-1 shows at a glance the breakdown of sources of funds for the department for fiscal year 1984, while expenditures of funds are shown by percentage in Graph 1-2.

### TABLE 1-3
### SUMMARY OF DISBURSEMENTS BY OBJECT FISCAL YEAR 1984

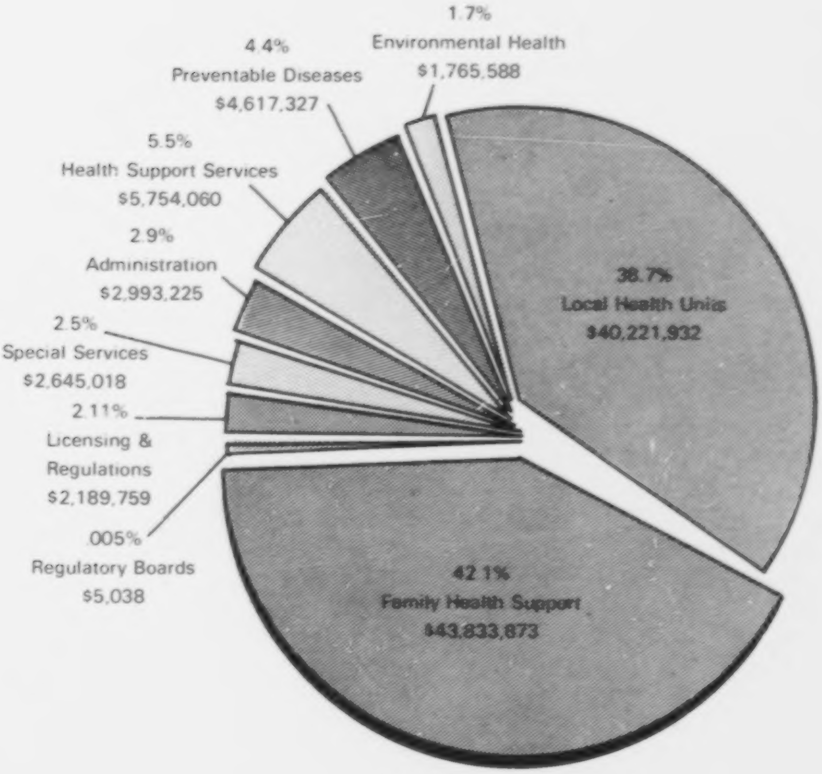
| Object | Expended |
|---|---|
| Salaries | $17,450,454.03 |
| Fringe Benefits | 3,611,386.15 |
| Travel—In-State | 1,178,942.48 |
| Travel—Out-of-State | 66,710.82 |
| Repairs and Maintenance | 145,529.88 |
| Rentals and Leases | 525,220.89 |
| Utilities and Communication | 1,143,477.81 |
| Professional Services | 1,962,405.32 |
| Supplies and Materials | 1,258,553.20 |
| Drugs and Medical Supplies | 1,315,261.96 |
| Food—Women, Infants and Children | 23,446,551.49 |
| Indirect Cost | 1,982,362.29 |
| Training | 46,671.90 |
| Transportation and Equipment Operations | 22,968.75 |
| Grants and Benefits | 7,012,546.28 |
| Transportation Equipment Purchases | 53,105.14 |
| Other Equipment Purchases | 352,849.21 |
| Non-Expenditure Disbursements | 3,268,645.05 |
| County Health Departments | 39,112,961.04 |
| **Total** | $103,956,603.69 |

### GRAPH 1-1
### SOURCES OF FUNDS RECEIVED FISCAL YEAR 1984



GRAND TOTAL $104,601,863

**GRAPH 1-2**
**EXPENDITURE OF FUNDS**
**FISCAL YEAR 1984**



GRAND TOTAL $104,025,820
(Revolving funds not included.)

## Division of Intoxication Standards, Testing and Control

The Chemical Test for Intoxication Act, commonly referred to as the Implied Consent Law, was enacted at the close of the 1969 legislative session. Prior to the passage of this act, laboratory analyses revealed that 600 to 700 citizens were killed annually in Alabama in accidents that involved drinking to some degree. Additional research revealed that 65 percent of the automobile operators killed were drinking. Of these, 63 percent had significant amounts of alcohol to impair their driving ability. This does not take into consideration the numerous injuries which result from the drinking driver.

Alcohol, although socially accepted, is a drug. Alcohol is classified as a depressant and it affects the brain, altering normal functions by rendering the motorist incapable of safely operating a motor vehicle. The degree of effect is determined by the alcohol content of the circulating blood.

The Chemical Test for Intoxication Act provides the legal approach for law enforcement agencies to measure blood alcohol levels. The law further provides that the State Board of Health shall be responsible for approving the testing instruments, method of analyses, laboratory procedures, and certification of personnel conducting the analyses. Personnel certification is based on qualifications to administer test procedures correctly, to obtain accurate results, and to have an acceptable knowledge of the scientific principles and law underlying the utilization of breath, blood, and urine to measure blood alcohol levels. The chemical test is the only accurate way to determine the degree that the brain is affected by alcohol. The first year that the test was permitted to be used in traffic enforcement, the arrests for driving while intoxicated increased by 9,000 cases over the preceding year. Approximately 45,000 cases are made annually through the combined efforts of all agencies.

The health department continues to participate and monitor the training of law enforcement officers to administer the examination and the utilization of the equipment approved in accordance with law. Four instruments have been approved: the Photoelectric Intoximeter, Gas Chromatograph Intoximeter, Breathalyzer and Intoxilyzer. An instrument is accessible to each law enforcement agency within the state. Test results have become a requirement by numerous courts. They provide scientific evidence as to a driver's mental ability as it relates to the degree of impairment produced by varying amounts of alcohol.

## Internal Audit Division

During fiscal year 1984 the Internal Audit Division staff, which consists of four auditors and one secretary, performed a total of 130 audits in 63 different county health departments. The division recovered $3,020.35 from an employee who had mishandled funds in a county health department. That individual's employment was terminated and the money was certified to the State Treasury on October 31, 1984.

The division monitored the "Uniform Accounting and Periodic Reporting System for County Health Departments." This system, which became effective October 1, 1983, is the procedure county health departments use for record keeping of funds collected and spent at the local level. This year $91,789.83 was transferred from county health departments' local bank accounts to the appropriate health department account in the State Treasury. The division staff assisted personnel in county health departments in complying with the system by providing answers to questions concerning the interpretation of various rules and regulations promulgated by the system.

Other activities performed during the year were to monitor the department's internal review system that requires all contracts involving the health department be sent to the Finance Division, Legal Division and Internal Audit Division for review and approval prior to signing by the state health officer. During fiscal year 1984 there were 199 contracts processed through this system.

The director of the division represented the state health officer on auditing matters in meetings with the State Examiners of Public Accounts, auditors from the federal government and auditors from private firms. Audit findings were discussed with the directors of certain administrations, bureaus and divisions of the department.

In addition, the Internal Audit Division evaluated the audit impact of certain legislative actions and made recommendations pertaining to those actions.

## Legal Division

The Legal Division of the Alabama Department of Public Health was staffed in 1984 by two attorneys, one legal intern and one secretary.

In their capacity as assistant attorneys general, division attorneys served on the opinions committee of the Office of Attorney General, providing review, comments and recommendations; wrote and reviewed proposed rules; researched and wrote opinions; represented the attorney general in providing legal assistance and counsel to various state boards; and consulted and coordinated with the attorney general on public matters.

The Legal Division, as the office of the agency secretary and office of primary responsibility for meeting the requirements of the Alabama Administrative Procedure Act, maintained the official file of the State Board of Health rules and functioned as the distribution center for rules to the public. The division was responsible for filing notices of intended actions regarding State Board of Health rules for publication in the *Alabama Administrative Monthly* and for conducting public hearings on rules.

During 1984 Legal Division attorneys represented the State Board of Health, county boards of health, county health departments, the Alabama Department of Public Health and its personnel in actions before state and federal courts and administrative bodies. Cases dealt with environmental, licensure, personnel, jail inspections, civil rights and other actions.

Division attorneys served as hearing officers for an Alabama Department of Environmental Management hearing; Women, Infants and Children (WIC) Program hearings; hospital and nursing home licensure revocation hearings; Board of Adjustment hearings and personnel administrative hearings.

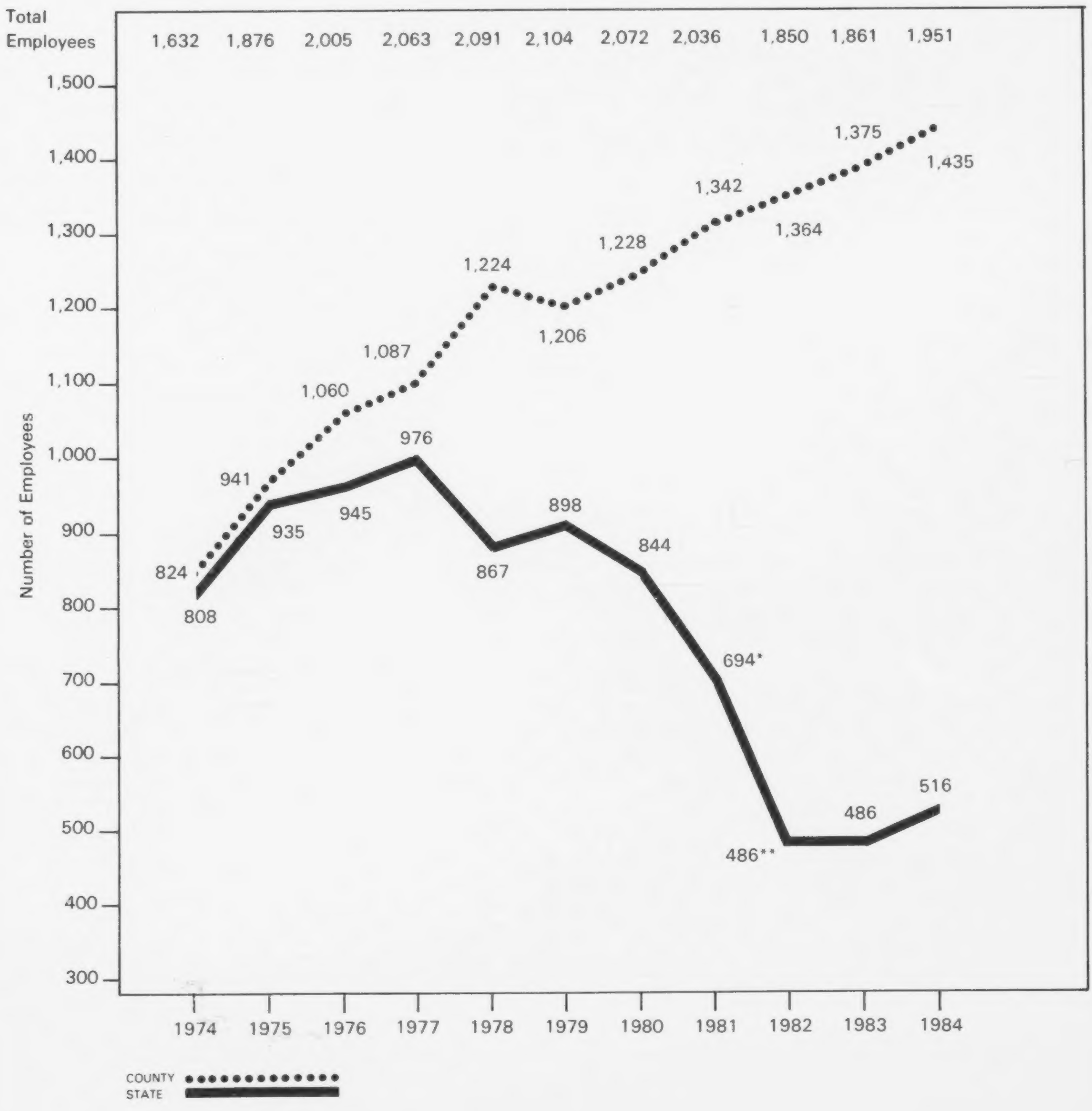
The Legal Division functioned as in-house counsel to all offices of the state health department and to the majority of the county health departments. Attorneys reviewed for legal sufficiency contracts, correspondence and other instruments. Legal review and rewrite was provided on new and existing State Board of Health rules adopted or amended during the year. Staff counsel furnished legal advice on a day-to-day basis to staff members of the state and county health departments involving interpretations of statutes and rules and appropriate legal and adminstrative actions to be pursued in their enforcement.

## Personnel and Training Services Division

The Personnel and Training Services Division is firmly committed to an ongoing program of job analysis to ensure the best efforts in maintaining properly classified positions with fair and equitable remuneration. During 1984 there were numerous job studies and task analyses conducted, resulting in 102 positions being reallocated to different classifications. Also, 83 new positions were established to meet departmental needs due to organizational changes designed to improve program administration. Some of these new positions were filled with existing staff, resulting in a number of vacant positions being abolished. Graph 1-3 charts the number of county and state employees for the past decade.

The combined recruiting efforts of the health department and the State Personnel Department resulted in 565 nurses being placed on the state employment registers. Other recruitment figures included 175 environmentalists, 60 microbiologists, 50 nutritionists, 3

## GRAPH 1-3
## EMPLOYEE STATUS REPORT
## 1974-1984



*Decentralization losses

**Alabama Department of Environmental Management losses

Chart includes area staff in county statistics institutional nutrition consultants, 320 public health representatives, 13 health educators, 21 radiation physicists, 6 radiation safety inspectors and 1,040 health services aides.

For fiscal year 1984 the legislature and the governor approved a 10 percent across the board raise for all state employees which assisted in reducing some of the disparity between state employment and private sector employment. However the state health officer had to continue a one step cap on annual merit raises in fiscal year 1984 for health employees because of a lack of funds.

In the area of staff development, the personnel director implemented Level I of the Public Health Management Training Program with 49 health officers and administrators completing the five day course. This training had been developed in 1983 through a series of studies and surveys conducted by health personnel and staff from the Center for Government, Auburn University at Montgomery. These workshops were conducted based on the training objectives of Level I of the Certified Public Manager program which is now being used by numerous states in the Southeast. They were designed to train managers to be aware of the needs of individuals and understand how to deal with others in order to effectively influence their work groups; to understand the various styles of leadership in order to develop more effective ways of working with employees; to use a goal setting system to more effectively manage work and personnel; to know how to write performance evaluations and conduct performance evaluation interviews; to understand how disciplinary problems can be minimized through a positive approach; and to understand the process of delegation and how to implement it.

Training was provided in three locations, Decatur, Greenville and Montgomery, to provide for convenient access for participants throughout the state and to reduce cost of travel and per diem.

It is planned that the 49 health officers/administrators will attend Level II in the spring of 1985. In addition, a new class will be conducted for Level I during 1985.

In the area of affirmative action, the percentage of minorities employed in the department increased from 22.5 percent to the present 22.84 percent in 1984. This figure compares favorably with data from the Department of Industrial Relations and other labor statistics showing that minorities comprise 22 percent of the labor force in the job classifications used by the health department. The division continued its minority sensitive recruiting efforts by contacting predominantly black colleges to recruit blacks in certain job classifications such as environmentalists, microbiologists and nurses. During 1984, 23.17 percent of the probationary appointments were minorities and 23 percent of all temporary appointments were minorities.

A provision of the department's Affirmative Action Plan is the upward mobility of minority employees through promotional appointments and appointments in management/supervisory positons. During 1984, there was an increase in the percentage of minorities in the official/administrator job category. Also, there was an increase in the percentage of minority employees in the professional, technical and office/clerical job categories. Currently, 12 percent of the minority employees are earning over $20,000 annually.

In the area of employee relations activities, the division continued to provide administrative support and guidance in resolving employee complaints and grievances. During 1984 there were 87 complaints against employees as follows: 67 for performance, 9 for leave abuse, 8 for falsification of records, 1 for insubordination, 1 for violation of program confidentiality and 1 for conviction of a felony that was considered job related.

Through the counseling provisions of the department's policy of progressive discipline, 48 of the complaints against employees were administratively corrected and/or resolved. Where disciplinary action was taken, employees were provided due process (fair hearing) in the following personnel actions: five dismissals, four resignations in lieu of termination, nine resignations during the counseling process, three suspensions, two transfers from the department, one reprimand and two retirements in lieu of termination. There are 17 complaints against employees pending or in process of resolution. During the year, four employees filed grievances against the department. Two of these grievances were administratively resolved and two are in process at this time. During this period there were three complaints filed with the Equal Employment Opportunity Commission. One employee filed a complaint, withdrew it and then later filed a second complaint. These complaints are currently in process.

Within the past year, two employees were provided professional assistance through the Employee Assistance Program, a formal program designed to provide professional assistance to employees experiencing personal problems that affect their work performance.

Of the 1,961 employees on the payrolls at the end of 1984, 646 were state employees and 1,315 were county employees. The employees of Jefferson and Mobile counties are not included in these totals since they are under separate merit systems. Accessions totaling 390 consisted of 233 original probationary, 64 temporary, 3 provisional, 16 reemployment, 45 transfer and 29 unskilled appointments. There were 107 promotions for this period. Separations numbered 294 of which there were 121 resignations, 63 transfers, 3 deaths, 68 expirations of appointment, 2 layoffs, 5 dismissals and 32 retirements.

# Public Health Areas

# PUBLIC HEALTH AREAS

## PUBLIC HEALTH AREA I

Public Health Area I covers 12 counties of North Alabama. Within Area I are the following administrative subdivisions: Northwest Alabama Regional Health Department, a three-county entity under the direction of a medical director; Tri-County District Health Services, a four-county entity under the direction of a medical director; Huntsville-Madison County Health Department, a large, metropolitan health department under the direction of a health officer; and four single county health departments which operate under the direction of the Area I director or local administrator.

The major problem faced, in common, by all elements of Area I is the procurement of funding adequate to meet the demands for services which are increasing throughout the area. A series of partially funded cost-of-living raises for merit system employees has placed a critical budgetary strain on every department in Area I. Past budgetary deficiencies have been resolved by the procurement of additional funding at the local level or by staff reductions. With little or no increased local funding available and with current staffing at a minimum level, any future budgetary increases must be funded at the state level; otherwise, serious reductions in service will be suffered at the local level.

Cullman County Health Department was moved into a new health center. The Huntsville-Madison County Health Department is desperately in need of additional building space. A study of local facility needs should be conducted. Many existing facilities are in need of repair and are rapidly becoming overcrowded to the point at which efficiency is curtailed.

**Environmental Health Services**—During 1984 Area I environmental health programs made significant progress despite a critical manpower shortage. Some 2,943 plans were reviewed; 3,744 on-site inspections were made and 901 enforcement actions were taken to abate insanitary sewage conditions. There were 15,250 food establishment inspections made with 945 serious insanitary conditions abated.

The 1984 Food and Drug Administration survey of food service establishments indicated a 13 point improvement over the previous two years, with an average score of 79 percent in Area I.

One hundred percent of the Area I food service inspection personnel were standardized in food sanitation inspection procedures.

Sanitary surveys in Jackson and Morgan counties resulted in two large subdivisions receiving grants to provide sewer services to replace septic tank failures of 85 percent.

Individual county accomplishments worthy of note were: an average food establishment score of 89.4 percent, one of the highest ever in Huntsville-Madison County, on the 1984 Food and Drug Administration survey. The Northwest Alabama Regional Health Department took civil action against 12 individuals for developing subdivisions not in compliance with subdivision regulations and won favorable rulings in each case. Morgan County's solid waste program succeeded in placing 2,623 customers on garbage collection. The Tri-County Air Pollution Program effectively monitors air quality while controlling nuisances such as open burning, and checking complaints regarding odor, smoke and dust.

Due to limited personnel, complaint investigations are receiving low priority and solid waste, vector control, plumbing inspections, public bathing and health education are deficient throughout most of PHA I.

**Personal Health Services**—Adequate funding to provide the staff needed to conduct the ever increasing clinical services is the number one problem of all counties in Area I. In some areas future layoffs appear to be a certainty. In other areas vacancies due to attrition will not be filled.

The level of nursing care in Public Health Area I continues to improve through attendance at bureau staff development presentations and in-service programs presented in local counties.

Home health clients have increased in number in most Area I counties due to diagnosis-related groupings and early dismissal of hospital patients. Administration of the program has been adversely affected by a change of the fiscal intermediary, new regulations and new forms.

Area I was awarded grants in six counties for an infant seat program. Such programs are now available in all counties of the area either in the health department or in hospitals.

Two Appalachian Regional Commission grants for Area I counties have been awarded for maternity services. The provision of deliveries has been curtailed by a lack of participation by physicians who refuse to take part due to liability risk.

The family planning program in Area I offered services in 16 clinics to 12,432 patients, an increase of 5 percent over fiscal year 1983. There were 3,684 new patients added to the service. A total of 30,512 visits represented a 10 percent increase over 1983.

Prenatal services were offered in only five counties. Prenatal services were provided to 1,173 maternity patients. Maternity patients in Area I made 6,802 visits to clinics. The availability of prenatal services to the needy is at a crisis level.

Well child clinics were available in all counties, at 15 sites. Of the 4,273 patients served, 3,048 were new patients.

Medicaid screening, available in all counties, provided screening to a total of 1,722 patients.

WIC participation increased by 1,213 clients in fiscal year 1984. Estimated nutrition education encounters during the year exceeded 40,000 in classes or individual encounters.

An additional staff member was employed for the immunization program. School immunization law compliance remained a priority during fiscal year 1984. Summary reports indicate that 98.37 percent of 132,253 students possessed blue certificates. Inability to maintain an adequate vaccine inventory continues to be a problem.

In the venereal disease program a clerk typist and a public health representative were added to the staff for Area I.

Primary and secondary syphilis cases decreased 31.5 percent and latent syphilis cases decreased by 32.2 percent over 1983. No congenital syphilis was reported in 1984. Gonorrhea cases increased by 6.6 percent. Gonococcal pelvic inflammatory disease cases increased by 30.4 percent. The number of *Neisseria gonorrhoeae* cases remained the same. A new program of referring gonococcal pelvic inflammatory disease cases to the health department was instituted at Decatur General Hospital.

One hundred eleven new cases of tuberculosis were reported in Area I in 1984. This represents an increase of 1.8 percent over 1983. Contracts with Eliza Coffee Memorial Hospital and Huntsville Hospital were renewed for fiscal year 1985. A Huntsville doctor was nominated to serve as physician coordinator for the tuberculosis program in Area I. A full-time program nurse was hired for Madison, Jackson and Marshall counties. Another physician was contracted to conduct outpatient clinics in Morgan, Lawrence, Limestone and Cullman counties.

## PUBLIC HEALTH AREA II

Construction on an additional wing of the Tuscaloosa County Health Center for environmental and administrative staff was completed in February 1984. Remodeling of the medical records area, creation of a new laboratory and additional space for Women, Infants and Children voucher issuance was also completed during the year.

Included in Public Health Area II are the five West Alabama District Health Department counties; Bibb, Greene, Pickens, Lamar and Tuscaloosa; Fayette County and Hale County.

**Environmental Health Services**—Environmental health activities include various types of inspection such as food, schools, day care centers, septic tanks, subdivisions, animal bites, jails, hotels, motels, swimming pools and private dwellings. Statistically for the fiscal year, environmental health activities increased by 20 percent from 6,128 in 1983 to 7,679 in 1984. Three main areas account for the increased activities. First, the number of food inspections increased within restaurants, schools, meat markets, bakeries and other establishments. Secondy, inspections of septic tank systems installed were up approximately 23 percent over last year. This indicated a larger number of new home and residential developments. Finally, inspections of private dwellings in connection with day care facilities were much greater than in years past. Along with the increase in quantity, great emphasis was placed on improved quality of inspections with stricter enforcement. A report by county is available in Table 2-1.

In conjunction with the first proclamation of a statewide Environmental Health Week, most city and county governments throughout Area II signed proclamations recognizing the work of the area's environmental staff.

Another first for the staff was participation with Livingston University in providing a quarter of training to an environmental science senior intern. In August the intern began eight weeks with environmentalists in the field, performing inspections and other activities to gain knowledge and experience about public health. An auxiliary benefit is the opportunity to encourage graduates to consider employment in the field of public health.

## TABLE 2-1
## SELECTED ENVIRONMENTAL ACTIVITIES FOR PHA II
## FISCAL YEAR 1984

| | Bibb County | Fayette County | Greene County | Hale County | Lamar County | Pickens County | Tuscaloosa County | Total |
|---|---|---|---|---|---|---|---|---|
| Food Inspections | 122 | 424 | 280 | 366 | 365 | 469 | 1,749 | 3,775 |
| Lunchroom Inspections | 59 | 52 | 63 | 19 | 50 | 84 | 402 | 729 |
| Day Care Inspections | 5 | 6 | 0 | 2 | 5 | 11 | 160 | 189 |
| Frozen Dessert Samples Collected | 58 | 63 | 27 | 6 | 20 | 43 | 492 | 709 |
| San 3's Approved | 54 | 79 | 14 | 11 | 55 | 69 | 538 | 820 |
| Septic Tanks Approved | 62 | 74 | 13 | 7 | 49 | 55 | 634 | 894 |
| Subdivisions Approved | 0 | 2 | 0 | 1 | 0 | 1 | 27 | 31 |
| Swimming Pool Inspections | 0 | 0 | 6 | 0 | 0 | 0 | 10 | 16 |
| Animal Bite Investigations | 7 | 8 | 0 | 17 | 13 | 37 | 105 | 187 |
| Hotel/Motel Inspections | 3 | 8 | 5 | 20 | 10 | 15 | 38 | 99 |
| Jail Inspections | 3 | 4 | 5 | 36 | 8 | 24 | 10 | 90 |
| Private Dwelling Inspections | 0 | 0 | 0 | 0 | 3 | 4 | 133 | 140 |
| TOTAL | 373 | 720 | 413 | 485 | 578 | 812 | 4,298 | 7,679 |

Environmentalists presented a food managers' training course in Tuscaloosa County during 1984 with approximately 30 workers from various food service establishments participating. The course reviewed all aspects of the Rules Governing Food Handling and Safety. Pickens, Bibb, Lamar, Greene and Fayette counties had food service and retail food store surveys performed. These surveys were done by Bureau of Inspection personnel from the Alabama Depatment of Public Health. All five counties were within the average range of expectation for the surveys.

During September environmental health became one of the first area programs to receive a computer. The IBM PC is currently being programmed with food establishment names, addresses, managers and other pertinent information. The secretary has successfully completed training courses in Wordstar, Lotus 1, 2, 3 and basic computer functions.

At the end of this fiscal year the West Alabama District Board of Health approved a proposal to establish a district-wide vector control program. The program will be aimed at disease prevention and reduction of vector population through education and surveillance. The environmentalist will work in each district county and will serve as advisor to cities and counties on control of mosquitoes, rats and other disease vectors.

**Personal Health Services**—Fiscal year 1984 brought many changes to Area II. For some counties staffing remained about the same while other counties had major problems and some services were curtailed for a period of time or were limited as to numbers that could be seen. Quantity of visits varied but quality of services remained high.

Program performance reports along with cost reports were reviewed and discussed with appropriate personnel in each county. A great amount of time also was spent with nursing staff on documentation of time for time study reports so that cost and performance reports would be more accurate.

Plans were made to initiate the unified medical record system in those counties not already using the new forms. This was made somewhat easier since the area had already gone to a central record system.

Generalized nurses in several counties are now assuming more responsibility for WIC which will help to further integrate the program into the system. Tuscaloosa County started a general clinic on an 8 a.m.-4:30 p.m., Monday through Friday basis this year. A family planning, tuberculosis, immunization and coding in-service program was presented to the staff to enable them to provide a complete range of services in that clinic. Those counties not providing a full range of services in general clinics also began to offer them on a weekly basis at the same time immunization clinics were being held.

The Capstone College of Nursing's dean and community health faculty met with area staff to plan and prepare for more structured participation by students within the health departments. Ongoing conferences continue in preparation for next fall.

Future plans are to strengthen services available, to increase services through integration of programs where possible, to meet with school health in a more

### TABLE 2-2
### PHA II CLINIC ENCOUNTERS
### BY COUNTY
### FISCAL YEAR 1984

| Clinic | Bibb County | Fayette County | Greene County | Hale County | Lamar County | Pickens County | Tuscaloosa County | Total |
|---|---|---|---|---|---|---|---|---|
| Cancer | 188 | 202 | 0 | 281 | 306 | 0 | 0 | 997 |
| STD | 4 | 13 | 26 | 100 | 28 | 120 | 3,844 | 4,135 |
| TB | 276 | 1,727 | 344 | 636 | 387 | 614 | 8,817 | 12,801 |
| Immunization | 1,570 | 1,974 | 1,182 | 1,768 | 1,970 | 2,754 | 8,775 | 19,993 |
| Family Planning | 1,177 | 642 | 1,778 | 1,636 | 823 | 1,157 | 6,714 | 13,927 |
| Maternity | 780 | 292 | 301 | 0 | 183 | 572 | 5,208 | 7,336 |
| Well Child | 367 | 168 | 212 | 380 | 284 | 906 | 2,255 | 4,572 |
| EPSDT | 164 | 152 | 140 | 38 | 88 | 297 | 1,050 | 1,929 |
| Home Health | 1,901 | 896 | 976 | 1,490 | 1,977 | 1,708 | 6,671 | 15,619 |

systematic manner, and to continue to upgrade the quality of the personal health services staff and services provided. Table 2-2 gives the number of encounters by county.

In fiscal year 1984, 1,242 prenatal patients were served which was an increase of 119 patients over the previous year. Total visits for prenatal care were 7,336 which was an increase of 1,234. The greatest increases were experienced in Fayette and Tuscaloosa counties. A monthly physician clinic in addition to the nurse practitioner clinics was begun in Fayette, and Tuscaloosa started an additional clinic in March.

The area family planning program experienced a decrease in both patients served and total visits. Patients served numbered 5,267, a decrease of 149. Total visits were 13,927, a decrease of 379. Pickens and Lamar counties experienced the only increase in total visits.

Well child visits increased in all counties. The total visits were 4,572, an increase of 1,045 areawide. Hale, Pickens and Tuscaloosa counties experienced the largest increases. Hale had an additional nurse available to provide services. Pickens contracted with Head Start, and Tuscaloosa increased clinic time.

Cancer detection clinics were held in Bibb, Fayette, Hale and Lamar counties. A total of 996 patients was screened.

Notification was received that Fayette County Health Department was awarded a special grant from the Appalachian Regional Commission to reduce infant mortality. This is to be accomplished through additional equipment in the obstetrical and nursery departments at Fayette County Hospital, increased prenatal services in the health department, and community education by department staff.

A special perinatal project enabled the health department to provide the following services. These figures represent patients served at the regional hospital; in homes and some clinics areawide; and in Tuscaloosa, Bibb and Pickens counties' prenatal and well baby clinics.

The nurse educator at the regional hospital had contact with 514 post-delivery patients. Tuscaloosa, Pickens and Bibb county well baby clinics admitted 642 infants and 3,475 visits were provided. Seven hundred twenty-six prenatals were admitted to the Tuscaloosa, Pickens and Bibb county maternity clinics, and a total of 6,492 visits provided. Areawide 808 prenatals were admitted. The nutrition educator made 1,956 contacts with mothers and children. Home visits made to the high risk infants totaled 197. The aide in Hale County made 132 home visits and participated in 249 well baby clinic visits.

Home health for Area II began fiscal year 1984 with a total of 214 patients (117 Medicare, 74 Medicaid and 23 disease and disability). At the end of fiscal year 1984, there were 262 total patients (140 Medicare, 85 Medicaid and 37 disease and disability). This reflected a 20 percent increase in Medicare patients, a 14 percent increase in Medicaid patients, and a 60 percent increase in disease and disability patients.

Visits for the area totaled 14,265 excluding 1,354 visits made at no charge. In addition to these visits, 166 evaluation visits were made where no skilled service was needed. There were 406 new users of home health care in this fiscal year.

Both West Alabama General and Druid City hospitals requested visits from the West Alabama District Health Department Home Health Agency in regard to the hospitals' desire to become home health agencies. This was brought about in part by diagnosis-related groupings and their effect on hospitals. Discussions continued throughout the year with no concrete decision made by either hospital. Public Health Area II home health agencies, particularly the West Alabama District Health Department, did not want to lose their agency and wished to continue the program.

Record audits continue to be held at the area office with all counties participating. Ratings for these audits average excellent. There is still some carelessness in documentation but this continues to improve.

Surveys were conducted with no deficiencies noted for Fayette and the West Alabama District Health Department. Hale County received a deficiency in number of advisory councils held. New contracts for physical therapy services in Fayette, Lamar and Bibb counties were obtained, thereby increasing the range of services to patients in those counties. Nurses in Fayette and Tuscaloosa counties presented a workshop for Department of Pensions and Security workers to teach necessary skills for providing personal care.

Staffing problems existed in Greene County and home health patients and visits had no significant increase throughout the year. Hale County also had staffing problems and the number of patients accepted by the health department had to be limited. Both these counties have good growth potential with adequate staffing.

State Health Planning Agency meetings were attended to speak in opposition to new home health agencies in the Pickens, Lamar and Fayette county areas. Plans were made with the home health coordinators in these three counties to visit the Columbus, Mississippi, hospitals and physicians to discuss their home health agencies and services offered. Marketing of home health has been an ongoing problem in Public Health Area II and each county coordinator must assume a more active role in this area.

In the area of dental health, efforts are directed toward dental health education and weekly fluoride mouthrinse for elementary school children in all seven counties. In addition to this, clinical dental treatment was provided at the Tuscaloosa center to 5,040 children from ages 2 to 21. Treatment included routine preventive and operative procedures such as examination, cleaning, X-rays, fluoride treatments, fillings, root canals, extractions, crowns and space maintenance.

A full-time dental director was recruited in October. In addition a pedodontist and an endodontist serve the Tuscaloosa Center on a part-time basis.

Dental health education included 16,581 students while 14,459 students participated in the sodium fluoride mouthrinse program, an increase of 2,310 over the previous year.

The purpose of the Women, Infants, and Children Program is to provide supplemental nutritious food as an aid to good health care during critical times of growth and development in order to prevent health problems. Participants in this program include pregnant and breastfeeding women, infants and children up to 5 years of age. All participants must be individually assessed to be at nutritional risk in order to receive program benefits. The benefits include foods that have been chosen because they are good sources of nutrients often low in the diets of this population group. The foods are available through local grocery stores in the seven county area by a voucher redemption system.

A second important benefit of WIC is the nutrition education received by each participant. Two nutrition information encounters are provided by staff nutritionists during a certification period. Each WIC participant receives individual nutrition counseling on his or her specific nutrition problem. A second encounter is also provided to show audiovisuals on nutrition topics.

At the year end of fiscal year 1984, 3,983 participants were enrolled in the WIC Program for Area II. This was a decrease of approximately 450 participants from last year. This was due to a tightening of the program's criteria for eligibility. The average participation rate was 95 percent and the average food package cost is $27.75.

An increase in gonorrhea morbidity occurred for the first time since 1978. However, this increase was expected. In 1983, with a reduced staff, an intensified gonorrhea epidemiology program was impossible to maintain. Therefore the reservoir of cases was allowed to increase. In 1984 with increased STD staffing, more case finding occurred. With a continuing intensified epidemiological approach to the gonorrhea problem and the effort being put forth by the staff, leveling off of gonorrhea morbidity and perhaps even a recurrence of the downward trend experienced since 1978 are possible.

On the positive side in the gonorrhea program a decrease in the number of gonococcal pelvic inflammatory disease cases occurred. This decrease could possibly be the result of more manpower pursuing those exposed to gonorrhea and especially bringing those females exposed to gonorrhea to medical attention before the sequela of pelvic inflammatory disease.

There was a marked reduction in syphilis morbidity. One factor attributable to the decrease was that the entire state experienced a reduction in syphilis morbidity in 1984. Another factor was that an increased, experienced staff was able to intervene in the disease as it occurred, pursue contacts more expeditiously, perform more reinterviews and more timely reinterviews. There is no indication that Public Health Area II has an indigenous syphilis problem.

Tuberculosis continues to remain a major health problem in Alabama and Public Health Area II. During the calendar year 1984 to date, there have been a total of 40 newly reported active tuberculosis cases. This did, however, represent a 13.63 percent decrease in new cases (40 a compared to 44). Reactivation tuberculosis still occurs. This has also increased 33.3 percent (2 as compared to 3).

Short term (9-12 months) chemotherapy has made a dramatic impact on the numbers of tuberculosis cases followed by the various health centers. The problem continues to be having the patient take the prescribed medication. Follow-up and management of contacts to new tuberculosis cases is very important for future reductions in numbers of new cases.

Vital records of the number of births, stillbirths and deaths which occurred in Public Health Area II are shown in Table 2-3.

TABLE 2-3
VITAL STATISTICS FOR PHA II
1984

| | Births | Stillbirths | Deaths |
|---|---|---|---|
| Bibb County | 37 | 1 | 88 |
| Fayette County | 245 | 0 | 137 |
| Greene County | 191 | 2 | 99 |
| Hale County | 193 | 3 | 113 |
| Lamar County | 0 | 0 | 97 |
| Pickens County | 116 | 1 | 194 |
| Tuscaloosa County | 2,353 | 30 | 1,500 |

## PUBLIC HEALTH AREA III

Six Central Alabama counties comprise Public Health Area III. Included in the area are the Jefferson County Department of Health and the Central Alabama Public Health Region. Jefferson County, the state's most populous, operates seven health centers. The Central Alabama Public Health Region is composed of five more rural counties: Blount, Chilton, St. Clair, Shelby and Walker. While these counties are predominantly rural they are experiencing very rapid growth.

### Central Alabama Public Health Region

Meeting ever increasing demands during the past year has been a challenge for the Central Alabama Health Region. Financial restraints have dictated efforts toward increasing efficiency, coordinating clinical services, and directing resources toward priority activities.

Throughout the area, efforts have been made to improve the visibility of the health department and to better inform residents of the many services provided. Slide presentations describing the range of services have been developed for three of the five counties. Presentations have been made to county commissions, city councils, local boards of health, schools, health fairs, community centers, civic groups and the media. The development of greater local support for the department has been of great benefit this past year and keeping this support remains a priority.

The Central Alabama Public Health Region office, located in Birmingham, remains a vital ingredient to the function of the area. The area staff share ideas and expertise, monitor quality of services, and provide much in-service education. The region continues to benefit from working closely with Jefferson County.

**Environmental Health Services**—Concerns about funding have occupied much time throughout the year with continuing restrictions of state and federal support. This decreased support is most obvious in the limitations of environmental services in most counties. Environmentalists find difficulty making required visits. Despite county growth, the number of environmental staff is less than that of several years ago in four out of five counties. With these limitations, efforts are continuing to standardize enforcement activities throughout the region. Areawide meetings continue to provide a forum for discussion of special issues. Negotiations remain in progress for an areawide environmental supervisor.

Progress in environmental health programs has occurred in several areas. Shelby County is experiencing the most rapid population growth in the state. Residents have benefited from the program which delegates primary enforcement responsibilites for subdivisions to the Shelby environmental staff.

The Walker County solid waste program is now staffed by a full-time officer. Adequate disposal of solid waste has been promoted through newspaper articles and radio programs which encourage additional households to participate in the pick-up services. A county-wide cleanup program was conducted with the help of prisoners from a nearby correctional facility. Most county environmentalists have benefited from standardization in food inspection procedures.

**Personal Health Services**—The most obvious change in clinical services has come with the areawide implementation of the unified medical record system. The knowledge gained from a pilot program in Blount County has been of special benefit in implementing the record in the remaining counties. Every health department secretary has been trained to assist in clinic registration regardless of program, which facilitates clinic coverage and improves patient flow. Services are more easily integrated when records are readily accessible; and duplication of work is reduced with only one record per patient regardless of the number of programs involved.

The importance of the unified medical record is most obvious in programs such as child health and women's health. All child health services, WIC, immunization and Medicaid screening visits need to be coordinated not only for the convenience of patient, parent and staff but also for the improvement of service. Likewise, women may attend clinics for WIC, family planning, maternity, Medicaid screening, and cancer detection and now benefit from having a coordinated record. Complete records reduce unnecessary visits, laboratory work, or testing and increase the quality of care. Efforts toward further integration of services and sharing of nursing staff is continuing.

The newest area health department facility, the North Shelby Health Center in Pelham, became operational this year. Services offered in Pelham include environmental health, WIC, family planning, Medicaid screening, immunization and sexually transmitted diseases. Despite limited space, the Pelham clinic already accounts for one-third of all of Shelby County's clinic visits. The STD clinic is scheduled from 4-6 p.m. in order to better accommodate area residents. Special satellite clinics for WIC participants continue to be offered in the Vincent area and the family planning satellite program at the University of Montevallo was re-established last fall. Shelby County women now deliver at Carraway Hospital in Birmingham through a special arrangement with Shelby Medical Center. The agreement was necessary due to the closure of Shelby's obstetrics unit.

Shelby County was also able to upgrade its existing computer equipment to enlarge memory and to provide an additional terminal for data input. Currently, the computer has been most useful to cross reference patient records and to record immunizations. Additional use is planned for home health and local financial records. Installation of fluoride monitoring equipment in Pelham, following a successful referendum, has allowed fluoridation of the city's water supply.

Walker County has initiated several new programs. A special evening teen clinic targets services for teens who are unable to attending during regular hours. Video equipment is used for special educational activities which focus on teen problems. A new STD clinic is conducted simultaneously with the teen clinic. New telephone equipment provides for a central switchboard and answering services, and connects all offices and clinic areas with the telephone-based intercom. A federal home health grant has allowed for significant expansion of home health services. A home health fee system has also been implemented which should help to further expand services to the indigent populations.

Blount and St. Clair counties both benefited this year from the leadership and on-site supervision of a new health services administrator. His attention to details of management and cost measuring has already yielded benefits in both counties. St. Clair services received a boost from the county commission with some much needed renovation at the Ashville office. The chronically leaking flat roof was replaced with a more suitable pitched design. Interior work to replace the rain-damaged ceiling tiles and wall is planned. The enlargement of the parking area in Pell City has relieved potentially hazardous traffic congestion present on busy clinic days. Local St. Clair County physicians continue to participate in well child and maternity clinics, and two newly arrived local physicians have been recruited to assist in the family planning clinics. WIC services have been expanded to a satellite clinic in Moody, one of the most rapidly growing areas of St. Clair County.

Chilton County benefits from funding through the local hospital board. Implementation of a local fee bill has provided much needed local revenues to further stabilize the situation. The home health case load has more than tripled over the past year. In addition, Chilton County has recently received a federal grant for further health expansion. A new phone system has provided for a central switchboard communication with a phone-based intercom.

Home health programs remain active throughout all counties in the region. Activities which have been of special value in maintaining case loads have been newspaper articles promoting local services and introducing the nurses involved, coordinating home health services with other local community resources, and training sessions held by health department nurses for homemakers of the Department of Pensions and Security. The department's reputation of providing quality and reliable services with the local physicians remains a priority as competition from private providers continues to increase.

Efforts toward increasing cooperation with other locally available health services have resulted in improved patient care. Mechanisms are now operational for the family planning program to provide contraceptive counseling and birth control pills to postpartum women prior to their hospital discharge. Women from both Blount and Shelby counties, now delivering at Carraway Hospital in Birmingham, benefit from this program. Counties also work closely with local hospitals in managing infant car seat loaner programs. Donations of car seats through Brookwood Hospital, the Jefferson County Medical Auxiliary and other civic groups have allowed expansion of the infant loaner program to all counties. Toddler seats

remain in short supply although recent grants awarded to Walker and St. Clair counties should help alleviate this problem.

Regional perinatal funds support two important programs benefiting patients of each county. In the high risk maternity project, patients with prenatal complications are referred to the University of Alabama at Birmingham for specialized obstetric care. These services can range from a simple sonargram to follow up of complications of diabetes or toxemia. Sonargrams are also available locally in Walker County. Some perinatal funds support an important referral program for sick infants. Upon identification of emergent problems by health department nurses, referral of an infant can be made to a local physician. Part of the cost of that visit is supported by the perinatal project. This program directly benefits patients in terms of improved services, and benefits the health department through improved communications with local physicians.

Preventive health services and communicable disease programs have profited from several activities. An effort to increase reporting of diseases was made by directly contacting selected physicians and hospitals regarding participation in the statewide operation surveillance. Follow-up letters have been sent encouraging proper reporting. Special workshops were held for local health department personnel on epidemiology, tuberculosis, immunization and general nursing practice. Standardized reporting procedures were developed for recording disease activity locally. Procedures for handling vaccines have been improved with the implementation of CDC recommendations regarding vaccine temperature control. Increased community education activities have resulted in many newspaper articles and radio progams which have focused on communicable diseases and prevention.

To improve immunization levels for children less than 2 years old, Walker County has mailed letters to all new parents to give them information about the health department and immunization. Responses are tied to the immunization program's high-risk follow-up system. Walker County has the largest number of in-county births in the region. Since most births in the region occur in Jefferson County, development of procedures to follow Jefferson County births to region residents is under discussion.

Reported tuberculosis cases have increased in four out of five counties, prompting increased clinic activities and epidemiology. While compliance with treatment regimes remains excellent for those patients with active disease, the dropout rate remains high for preventive treatment. Improvements in drug compliance have been seen after increasing the available hours for medicine pickup and decreasing required length of treatment. Staff availability for skin testing also has been increased. The nurse coordinators in each county remain key personnel in the TB program.

Vital records services have expanded in all counties. Walker, Blount, St. Clair and Shelby counties each has legislation allowing official copies of death certificates to be issued locally. Chilton County has benefited from new state regulations allowing copying of certificates. Birth verification cards are issued in Shelby and Chilton counties with support from local fee bills and in Walker at no charge. Local fee bills are contemplated in all counties.

## Jefferson County

The Jefferson County Department of Health provided services to patients making over 260,000 visits in 1984. The department protected the health of community residents through measures to control communicable diseases and regulatory programs which ensured a safe and healthy environment. In addition to offering routine services, the department initiated some new programs and expanded others.

A new computer system was installed which offers many features. Satellite centers can be connected to the system making computerization of billing and patient records possible. Birth and death records can be located more quickly, and death and morbidity data can be tabulated with greater speed and accuracy.

**Environmental Health Services**—Sanitary engineers monitored 1,334 repairs to on-site systems, inspected 4,069 septic tank clean-outs, and reviewed 1,822 applications for on-site systems. There were 596 inspections of X-ray facilities. The Rabies Control Center impounded 8,514 animals and responded to 17,207 requests for information or services.

The department monitored 79 asbestos removal projects, mostly in schools. Pollution control personnel conducted comprehensive annual inspections of all 91 major air pollution sources in Jefferson County. Annual inspections of all permitted incinerators were initiated.

The department was involved in a survey conducted by the Environmental Protection Agency which showed a significant number of local motorists have tampered with the air pollution control equipment on their cars and many are misfueling. This is contributing to high ozone levels and may result in an automotive inspection and maintenance program in Jefferson County.

At the request of the city of Birmingham, the department developed a pilot project to control mosquitoes through the application of larvicide.

As the result of a ruling by the state attorney general, the department is now responsible for control of illegal dumping in Jefferson County. An enforcement program to eliminate illegal dump sites will get under way in 1985.

**Personal Health Services**—Major activities in disease surveillance and immunization included investigating infections in day care centers, maintaining a system for reporting and collecting data on notifiable diseases, investigating and controlling outbreaks of disease, and maintaining the county's high immunization level of 98 percent among the county's 128,000 school age children.

More than 300 suspected cases of tuberculosis were investigated and 122 of these were confirmed. The syphilis rate continued to decrease while cases of gonorrhea rose slightly. Department personnel conducted more than 5,000 case investigations of sexually transmitted diseases including 17 cases of pediatric gonorrhea. An epidemic of penicillin resistant gonorrhea was brought under control.

Blood lead levels of over 200 persons were checked to detemine the impact of a lead smelter which operates near where they live.

Several new studies and research projects focused on control of communicable diseases. One of these is an ongoing study to determine the effects of spermicides on the incidence of sexually transmitted diseases. Another is a study of the incidence of type 1 juvenile diabetes mellitus. This is being conducted in conjunction with the Centers for Disease Control following a 1983 epidemic of Coxsackie B5 virus infection which occurred in Jefferson County.

The tuberculosis control program participated in research projects to evaluate shorter treatment regimens, study factors associated with the reactivation of disease, and determine residential and occupational characteristics of persons developing tuberculosis. Additional research focused on refining the process of investigating contacts of new tuberculosis cases, the use of twice-weekly drug regimes to improve treatment compliance, and a study of the association of diabetes mellitus and tuberculosis.

More dental services were offered than ever before. Clinic visits, dental health presentations, and use of portable dental equipment increased. A program of preventive dental health was implemented at a city elementary school. This includes a fluoride mouthrinse program and dental health education. Sealants and teeth cleaning are available to children who are eligible.

Classes on the first year of life are now offered at two pediatric clinics. Information about growth and development is presented by a nurse and a nutritionist.

A teen clinic was initiated at Bessemer Health Center, the second such clinic established by the Department of Health. The clinic offers a class on reproductive health and examinations for patients who choose a contraceptive method. The goal is to prevent teenage pregnancy by providing services which meet the needs of adolescents.

The home care program has been affected by changes in Medicare regulations which have reduced the length of hospital stays. Patients are being discharged with more acute problems and may require more extensive care at home. Training activities have focused on preparing the home care staff to meet the needs of these patients.

Referrals to the Birmingham Area Hospice have been steady with the program maintaining an average case load of 20.

WIC, the federally funded supplemental food program for women, infants, and children, continued to expand in 1984. The case load of high risk, pregnant women, infants, and children up to age 5 increased from 10,000 to 13,000.

A one year program which provided medical care to unemployed and disadvantaged residents of Jefferson County was administered by the Department of Health in conjunction with the county's hospitals for the indigent. The program included outpatient services and uncomplicated hospital deliveries.

To promote infant health and safety, the department established a program to lend infant car seats to clinic patients. Car seats were obtained through a grant from the Bureau of Primary Prevention, Alabama Department of Public Health, and from a local hospital.

The department was awarded a three year grant to develop a program on adolescent pregnancy prevention. The program is called ADAPT which stands for Avenues of Dialogue for Adolescents, Parents and Teachers. ADAPT offers workshops for teachers, classes for students, and seminars for parents. The goal of ADAPT is to decrease adolescent pregnancy by providing accurate information, encouraging responsible decision making and increasing communication between adolescents and parents.

Parenting was the theme of a Family Fair held at a local mall during the back-to-school season. Exhibits featured information on everything from childbirth to toilet training.

Health information packets distributed to the public last summer included brochures on mosquito control, sunburn treatment and the symptoms of heat related illness.

The year was not without its problems. The demands for services at the Western Mental Health Center continued to increase while funding sources declined. For the third year in a row, the center lost a sizable portion of federal dollars. However, reimbursement for Medicaid offers a new funding source and may provide some relief.

## PUBLIC HEALTH AREA IV

The organizational structure of Public Health Area IV was completed during 1984 by filling the vacant positions of immunizations coordinator and health educator. Organizational function is not viewed as an extra layer of bureaucracy, but rather as an interface between the state organization and those at the county level. The area organization functions as the conduit through which policy directions from the state are channeled to the counties. In this way, the 11 county health departments in PHA IV receive the directions necessary for coordinated program implementation, achievement of goals, and delivery of public health services while maintaining a generally high level of cost containment and program performance.

Funding deficiencies continued to create problems. In Talladega County a four day work week for more than four months became necessary in 1983. In spite of an increase in local funding totaling over $40,000 for a gain of 33 percent, Talladega County sustained a deficit which necessitated that fiscal year 1985 begin with a reduction in force of seven positions. Tallapoosa County failed by $11,984 to qualify for its share of state matching funds, and became the only county in PHA IV to do so. For fiscal year 1985, five counties increased funding, five decreased, and one did not change. PHA IV enjoyed an overall increase of $82,145 or 11.5 percent.

The assistant state health officer and his staff set a high priority on obtaining funding from all possible sources. Because of this, PHA IV was given a continuation of its grant from the State Perinatal Advisory Committee. The grant was increased by 12.7 percent for a total of $95,005. Etowah County received Appalachian Regional Commission funding of $151,000 to complete renovation of the health department after sustaining an asbestos contamination in the early stages of remodeling. ARC grants totaling $165,493 for expansion of home health services were given to five counties of PHA IV. Chambers and Cherokee counties were successful applicants for an ARC Infant Mortality Reduction grant totaling $35,000. PHA IV was thus the recipient of federal grants which totaled $446,498 during 1984.

The assistant state health officer continued his efforts to achieve a closer working relationship with the county boards of health, and he attended 33 board meetings during 1984. The format of meetings was modified in that a written agenda with supporting documents was supplied every board member; and the administrator, nursing supervisor and environmental supervisor attended each meeting with the assistant state health officer. The change in the format of the meetings resulted in increased member attendance, interest and participation. Increased involvement of each county board of health with its own county health department remains an important objective for the assistant state health officer.

**Environmental Health Services**—In 1984, PHA IV had a reasonably good year. All activities were handled with no major problems, and all legally mandated requirements were met satisfactorily. There are 26 environmentalists employed in the 11 northeast Alabama counties of PHA IV with a population of about 510,000.

Environmental training plays a vital role in the overall plans of PHA IV. One of the area's important training projects is the food service certification training offered to food managers and employees of the food industry, schools, hospitals and nursing homes. In 1984 22 courses were presented and certificates were issued to 359 persons.

Another of the 1984 training classes was the areawide soft ice cream workshop. This training was oriented to the upper level management of the soft dessert industry. Over 80 people attended this workshop.

Other training highlighted in 1984 was subdivision training. Since subdivision primary enforcement was implemented for all 11 counties on October 1, 1984, training was planned and carried out in soils, wet weather training, dry weather training, engineers' training and all administrative training needed to support the program.

In 1984, newly adopted camp regulations were implemented in all 11 counties. Of the 26 camp operations, all camps were permitted and inspected. The regulations have been found highly successful in promoting better camping facilities and conditions in PHA IV. At year's end, consideration was being given by the Bureau of Inspection of the Alabama Department of Public Health to recommending statewide adoption and implementation of the camping regulations of PHA IV.

The Department of Pensions and Security is the licensing agency for day care centers in the state. One of the requirements for licensure is that each child be immunized according to the schedule prescribed by the Alabama Department of Public Health. The Department of Pensions and Security is cooperating with local health departments in enforcing immunization requirements. In PHA IV, 100 percent of all licensed day care centers are surveyed no less than quarterly. The environmentalists conduct the immunization survey each time the food service inspection is done. The survey is turned over to the nursing sections of the health department for follow-up to ensure that each child is immunized.

Another local public health service that Public Health Area IV offers is the food inspection service of hospitals and nursing homes. Staff expertise in all food matters is a valuable asset for the hospitals and nursing homes, and is also a benefit for the patients who eat there. PHA IV is especially proud of the fact that with the exception of one nursing home in Etowah County, all hospitals and nursing homes voluntarily complied with local health departments in submitting to permitting and regular inspections. The health departments of PHA IV also offer food service training courses to all employees of hospitals and nursing homes on a biannual basis.

Groundbreaking for the new Calhoun County Jail was held in the fall of 1984. A new jail in Randolph County is under construction. Environmentalists continue to strive for better jail conditions in PHA IV by working in close cooperation with local sheriffs and county commissions.

In the area of food operations, PHA IV had six state food surveys with scores ranging from 73 to 81. The Food and Drug Administration rules workshop was held in Anniston with all environmentalists from PHA IV attending. Inspections were made in 109 summer feeding programs from which each county realized $30 per inspection. State personnel standardized five environmentalists; and seven persons were standardized by PHA IV supervisors. Standardizing of the remaining 14 environmentalists is included in plans for the coming year.

Another program which PHA IV implemented October 1, 1984, is the local enforcement of subdivision regulations. Prior to this time, subdivision regulations were handled by the counties with the Alabama Department of Public Health being the final approving authority. Under the new arrangement with each county being totally responsible, the local health department can be more responsive to the public and also to the developers. It is believed that the local environmentalists can administer the subdivision regulations and that this will result in a better public health program at the local level. During 1984, 45 subdivisions final reports were completed.

In on-site sewage systems completed, there were 12 shallow implacement systems, 10 aerobic systems and 2,291 conventional septic systems completed.

The implementation on October 1, 1984, of a house-to-house garbage pickup in Calhoun County promises to be highly successful with 9,500 of 12,500 households already subscribing to the service at the year's end. This brings to eight the number of counties in PHA IV utilizing the house-to-house method of garbage pickup, and leaves only three counties which continue to rely on the less satisfactory canister method. Those counties continuing to utilize canisters are Clay, Cleburne and Tallapoosa. The improvement of existing house-to-house pickups and the conversion of the three canister systems to house-to-house pickup continues to be a high environmental priority for PHA IV for 1985.

The local environmentalists of PHA IV carry out all environmental activities associated wth such events as the Talladega Speedway races, the musical group Alabama's annual benefit concert, and the music festival at Henegar. These events as well as the water recreational areas in Calhoun, Cherokee, Randolph and Tallapoosa counties are the stimulus for the influx of large numbers of transients which demands extra work on the part of environmentalists of PHA IV.

**Personal Health Services**—In April 1984, PHA IV's immunization program underwent an expansion. For the first time in Alabama, a registered nurse was hired as area immunizations coordinator. The nurse was selected for her medical knowledge and her ability to interact with the medical as well as the nonmedical community. The Statewide Operation Surveillance (SOS) Program was expanded from the required four to all 11 counties, and became the basis of a beginning epidemiology program when sentinels were increased to include every laboratory, hospital, pediatrician and day care center as well as two physicians other than pediatricians in each county. The list of diseases under surveillance was increased from the usual vaccine-preventable diseases to include all notifiable diseases required by the State Committee of Public Health. Each county sentinel reports weekly to the area immunizations/epidemiology coordinator who in turn reports to the state epidemiologist.

In addition to the SOS program, notifiable diseases are being reported to the area by hospitals which are being visited individually by the immunization/epidemiology coordinator. Each hospital submits a weekly list of patients discharged with a notifiable disease. Each county vital statistics registrar submits a weekly report of deaths to PHA IV from which deaths due to notifiable diseases are extracted.

Not only is there a steady increase in the numbers of notifiable deaths reported, there is also a more prompt epidemiologic response at the county level. The result of this is that PHA IV has become a resource center for county health departments, hospitals and physicians with regard to disease outbreak, control measures and treatment of contacts.

Environmentalists continue to survey the immunization status of children in 100 percent of the 143 licensed day care centers in PHA IV, not annually, but at least quarterly. Better communication has resulted in closer and more consistent follow-up by county nursing personnel with the result that immunization levels in these preschool children continue to improve.

PHA IV conducts immunization surveys for all schools, for kindergarten through grade 12, and completed 100 percent of such surveys during the past year.

The immunization/epidemiology coordinator maintains currency in and provides information about international travel requirements; namely immunizations required, availability of vaccine and needed immunization certificates.

In an effort to increase the number of Medicaid screenings in PHA IV, several meetings were held between nursing supervisors and personnel of the Department of Pensions and Security with the result that procedures were established to ensure more referrals of Medicaid eligible people to the county health departments for assessment.

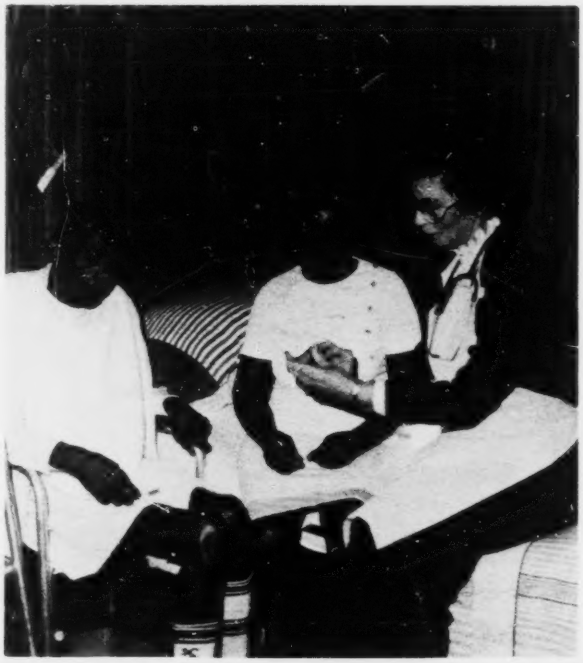
Medicaid screening in Talladega County received special emphasis when the assistant state health officer and his staff met with the president of the Alabama Institute for the Deaf and Blind (AIDB) and arranged for the county health department to screen all Medicaid-eligible students. The institute has about 700 students of whom approximately 50 percent are eligible for screening services. An unusual public relations achievement was realized when, during negotiations with institute staff, health department personnel identified areas where AIDB itself might claim Medicaid reimbursement for services heretofore provided its students at the institute's expense. As a result, the Alabama Institute for the Deaf and Blind is scheduled to begin receiving Medicaid payments in calendar year 1985 for optometric and audiometric examinations, physician consultations, dental services and medical emergencies.

The infant mortality reduction program received a continuation grant from the Region IV Perinatal Advisory Committee in the amount of $95,005, an increase of 12.7 percent over 1983. This highly successful program identifies the high risk maternity patient or newborn, provides payment for private physicians' consultations and laboratory studies, and provides for special home visits by public health nurses. Medium or high risk maternity patients constituted 91 percent of all new maternity patients admitted to county health department clinics. The program paid $20,567 for private physicians' consultations and laboratory work, a 4.1 percent increase over the previous year. The home health services of local health departments were reimbursed $42,552 for home visitation of high risk patients, and this represented a 69 percent increase over the previous year.

Jobs Bill money, which allowed payments of $150 to private physicians for delivery of clinic patients, continued for most of 1984. Deliveries reimbursed by this source increased from 63 last year to 532 in 1984. Exhaustion of the Jobs Bill money was met with considerable dissatisfaction on the part of delivering physicians and was the stated cause for total withdrawal of physician support and closure of the maternity clinic in one county of PHA IV. Lack of physician support accounted for closure of maternity clinics in Cherokee, DeKalb and Tallapoosa counties. High malpractice insurance premiums required for obstetrics was given as the cause for the closure of the Coosa County maternity clinic scheduled for March 1985. Each of the 11 health departments was given a dopp-tone fetoscope at a cost of $5,200 from program funds. A health educator was hired with program funds in August 1984, thus restoring an essential part of the infant mortality reduction program.

With the impetus provided by Appalachian Regional Commission grants for the expansion of home health services in five counties of PHA IV, additional nurses and aides were employed and home health visits increased 66 percent from a total of 25,160 in 1983 to 41,707 in 1984. Due to the expansion permitted by the grants together with the beginning of diagnosis-related grouping reimbursement to hospitals, PHA IV anticipates a significant increase in home health visits during the coming year.

Of the 10 counties in Alabama with a state-supported hypertension intervention program, PHA IV has four or 40 percent of all programs. During 1984, a hypertension screening program, modeled after the state program, was



instituted in the remaining seven counties of PHA IV. Screening programs utilize the same procedures and guidelines as the intervention programs with the exception that no medications are dispensed, and no laboratory or diagnostic procedures are done. Screening programs emphasize identification of hypertensives, their referral to local physicians who have agreed to accept such patients and treat them according to program guidelines, and follow-up of patients in the health department as ordered by the physician. At year's end, plans were being completed to hire a hypertension program coordinator who would be responsible for the hypertension programs throughout PHA IV.

PHA IV experienced a 22.4 percent decrease in primary and secondary syphilis with a total of 38 cases in 1983. A decrease of 22.6 percent in gonorrhea was noted with the reporting of 1,226 cases. Even better results with sexually transmitted diseases are anticipated in PHA IV for the coming year, because of the hiring of a new public health representative in September 1984.

## PUBLIC HEALTH AREA V

Area V is composed of 18 counties located in the southeast quadrant of the state. The area is roughly bounded on the north by Montgomery and Opelika, and on the south by Dothan and Andalusia. Geographic boundaries include Lake Eufaula which forms part of the Alabama/Georgia border and Lake Martin, part of which is located in the northeast corner of Elmore County. Area V is the second largest public health area in the state in terms of both land area and population.

Since population and population changes are important demographic indicators for health planning purposes, seven major growth areas have been identified: Andalusia, Dothan, Enterprise, Opelika, Ozark, Montgomery and Troy. Current population estimates show these growth areas expanding outward, many into surrounding counties.

The administrative structure of Public Health Area V includes an area administrator and coordinators for all the major programs. Montgomery and Houston counties are each staffed with a local health officer. The remaining 16 counties are under the supervision of six health services administrators.

The emphasis for 1984 in Public Health Area V has been on accountability and productivity. As part of this process, the assistant state health officer meets on a regular basis with program coordinators and county personnel for the purpose of analyzing each program with regard to availability, accessibility, cost and quality of services provided. Each program is evaluated using the statistical information available, and a realistic set of goals and objectives is adopted for each individual county.

Extensive use is made of the program performance and cost analysis reports. These reports provide management personnel the methodology for planning and analysis to identify the strengths and weaknesses in the various county programs.

These reports enable the counties to compare their results with each other for the purpose of sharing problems and solutions. The reports also provide the counties an understanding of their contributions to the area performance and the area's relationship to the entire state.

A dramatic incident occurring in 1984 was the fire in the Lowndes County Health Department on January 2, which forced a move to temporary quarters. Although the fire occurred on a day that was not a working day, the health department staff reported to the scene and managed to rescue the health department records. The move to temporary quarters was made with only one day's delay in services. In the plans for renovation of the building, it was discovered that the ceilings were asbestos, and replacement of the ceilings was included in the plans. The health department was able to return to the original building on September 5, 1984.

During the year plans were completed for a new building for the Houston County Health Department. Money was obtained from federal sources and county funds, in the amounts of $250,000 federal and $850,000 county. The new building will be located at the Houston County Farm Center on the corner of Ross Clark Circle and Cottonwood Road, and will provide 17,000 square feet of floor space.

**Environmental Health Services**—Because of the importance of enforcing laws uniformly, special efforts were made to standardize the way local environmentalists interpret and enforce the regulations governing food service establishments. Six local environmentalists received this intensive training in 1984. The effort will continue until all county environmentalists in Public Health Area V have been included.

The food inspection program saw other activities in 1984. With Bureau of Inspection personnel, a plan was developed to assure complete and accurate identification and correction of all critical sanitation violations in food service establishments. Legal notices were issued for all critical item violations, and rapid follow-up enforced correction of these violations. Environmentalists are reporting 100 percent compliance with legal notices when used in this manner.

During the summer of 1984, subdivisions, septic tank manufacturers, and schools with on-site sewage disposal were surveyed by county health departments for compliance with current regulations. The survey revealed that 95 percent of the subdivisions recorded in county probate offices had been approved by the health department, 89 percent of the school on-site sewage disposal systems were in compliance, and 83 percent of the septic tank manufacturers had been licensed. Those not in compliance have been notified of their violations and will be in compliance by early 1985.

The Houston County Health Department was instrumental in the declaration of a sewer connection moratorium involving most of southwest Dothan. Through investigation of citizens' complaints, a sewage overflow of 1½ million gallons per day was brought to the attention of local government officials and the general public. At the request of the local health department, the Alabama Department of Environmental Management investigated the sewage overflows. ADEM's investigation resulted in additional priority points being awarded to Dothan's application for federal funds. An Environmental Protection Agency grant was awarded, and work has already begun that will eliminate the sewage overflows and permit the resumption of sewer connections.

Public Health Area V had an alarming increase in the number of laboratory confirmed cases of animal rabies in 1984. Of specimens submitted to the Clinical Laboratory Administration, 85 were positive for rabies. The animals involved were as follows: 66 raccoons, 11 bats, four cats, two dogs, one horse and one fox. The disease is spreading from wildlife to pets and other domestic animals, thus creating a much greater hazard of human exposure. The higher incidence of rabies prompted a number of counties to conduct door-to-door vaccination surveys with mandatory vaccinations of all unimmunized pets. Counties conducting these programs report a compliance rate greater than 95 percent. Other counties are making plans to implement similar programs. In addition, plans were formulated to declare 16 counties in Public Health Area V a rabies epizootic.

Rabies vaccination statistics for Public Health Area V show only one-third of pets were vaccinated in 1982 and 1983. Higher vaccination levels must be achieved in order that immunized pets and domestic animals can provide a protective barrier between human beings and wildlife rabies.

Local environmentalists continue to emphasize the importance of fluoridation of public water supplies. Six communities in Area V have passed ordinances to fluoridate but have not yet begun to do so. The reason for not fluoridating is financial, both the initial cost of equipment and the cost of operating the sytem. The fact that public water supplies are now the responsibility of the Department of Environmental Management complicates the position of the health department in promoting the adoption of this important health measure.

**Personal Health Services**—Most of the personal health programs were busier than last year, and served a larger percentage of residents in need.

New activities included initiation of a well child clinic in Dale County, so that now every county in the area provides this service.

Dale County also completed plans for in-home service to begin in November 1984, thus joining Coffee, Geneva and Henry counties in supervising this program. The program is funded by the Alabama Commission on Aging through the Southeast Regional Planning and Development Commission. It sends home service workers into the homes of elderly residents to assist with such needs as cleaning and shopping. Although it is not one of the regular health department programs, the county commissions appealed to the health departments to oversee this service, and in fact, the in-home service frequently identifies patients needing skilled nursing care, thus relating directly to the department's home health program.

Two counties, Butler and Crenshaw, obtained federal grants to expand their home health services. Butler County received $60,000 and Crenshaw $48,000, which will be used for additional nursing and aide staff, and for equipment and supplies. The experience of all Area V counties who have received these grants is that by the time the grant money is gone, the patient load has increased to the point that the program continues with the fees earned.

Areawide, the number of patients receiving home health care dropped very slightly from last year, from 27 percent of those in need, to 26 percent for 1984. The services in 1984 were provided in a total of 90,781 visits to 2,798 patients.

Cancer detection clinics provided services to 5,327 women in 1984, or 9 percent of those in need, an increase over last year's 8.5 percent. An additional 550 women in five counties received pap smears at health fairs in which the health departments participated.

Well child clinics (including Dale County's new clinic) increased the number of patients served from 5,073 to 7,472. Visits by these children increased from 11,370 to 14,848. Nine counties have physicians attending their clinics.

Family planning patients increased from 18,383 patients in 1983 (33.7 percent of those in need) to 18,950 (34.7 percent of those in need). Visits increased from 43,831 to 46,315.

Maternity clinics served 3,406 patients, down from 3,484 in 1983, a drop from 52 percent of those in need to 51 percent. Visits held steady at 16,490 in 1983 and 16,494 in 1984. Eleven counties have physicians in attendance at their clinics. Montgomery and Barbour counties have nurse midwives. Jobs Bill money was provided for 55 indigent deliveries.

WIC participants increased from 31,733 in 1983 to 33,382 in 1984, providing services to all those designated as in need.

The immunization level of entering school children is 98.6 percent. For several years the immunization level has been more than 98.5 percent. Day care center immunization levels are 96.1 percent. All day care centers were visited during the year. During 1984 all 23 of the area's hospital delivery units were visited to provide immunization information for new mothers. Also two colleges were visited to encourage them to require immunization of their students.

Two counties, Coffee and Geneva, are participating in the hypertension therapy program. Other counties provide blood pressure screening with referrals to private physicians.

Tuberculosis cases increased in 1984. Eighty-four new infectious cases were found, of which 79 were confirmed by positive bacteriology. For comparison, there had been 70 new cases in 1983 and 88 new cases in 1982. Four hundred twenty-nine patients were placed on preventive medication in 1984. The inpatient contract for Public Health Area V patients was continued with St. Margaret's Hospital. Thirteen patients were admitted and discharged for a total of 195 patient days.

The venereal disease program provides scheduled clinics in Houston and Montgomery counties. In the more rural counties, increasing responsibility has been placed on local public health nurses, and the cooperation between county staff and area VD representative has resulted in substantial progress in the control of venereal diseases. In 1984, Area V saw a 35 percent decrease in the early syphilis rate. The gonorrhea rate decreased by 15 percent. There has been an increase in the penicillinase-producing *Neisseria gonorrhoeae* with 17 cases reported in 1984. PPNG is given top priority by county and area venereal disease staff.

Consolidation of clinical programs in personal health services continued in 1984. The counties are also converting to the unified medical record system. These changes shift emphasis from programs to individuals and improve accessibility to services. In 1984, nine counties began using the unified medical record system, and 12 counties operate consolidated clinics.

A serious limitation for almost every health department is space. This limitation even overshadows the long-standing problems of funding and recruiting staff. With all clinic rooms busy, it becomes impossible to see more patients. To a certain extent, streamlining patient flow and rearranging clinic schedules allows some increase in activity, but most health departments have now reached their limits, utilizing even hallways as temporary clinic rooms.

## PUBLIC HEALTH AREA VI

Public Health Area VI continued to meet the critical public health needs of the 13 largely rural counties of Southwest Alabama. As an integral unit of the Alabama Department of Public Health, PHA VI is having a direct impact upon all citizens' quality and quantity of life through its expertise in environmental health, public health preventive nursing programs, and home health nursing care. Administratively, three local health officers direct Mobile County, Dallas and Wilcox counties, and the Gulf Coast District (Baldwin, Conecuh and Escambia counties). Management in the remaining seven counties is provided by four public health administrators.

**Environmental Health Services**—Although the national economy is rebounding strongly, homebuilding and related sewage disposal saw little growth in the economically stagnant area outside Mobile and Baldwin counties. This period of slow growth has enabled the local environmentalists to more closely monitor sewage disposal activity. An audit of probated subdivision records in all 13 counties confirmed that all PHA VI subdivisions have met the reporting requirements of the Alabama Department of Public Health. A program to ensure that all probated subdivisions are approved by the local health departments will continue in 1985.

During the past year, all septic tank manufacturers, including some based in Mississippi, were inspected and approved. This program will be an ongoing activity of the environmental section.

Older, independent food establishments with entrenched problems (as opposed to fast-food chains with high internal standards) continue to challenge the food inspection program in PHA VI. However, the presence of an area environmental coordinator and emphasis on standardization of all local environmentalists in interpretation, application, and enforcement of regulations should have a favorable impact upon the food program during the next year. The area coordinator is developing a series of food handler/manager mini-courses which can be presented as needed by the local health units. To implement any changes which might strengthen the local program, the coordinator will meet with the state inspector and local food inspector to review all survey reports of the local food establishments.

The early 1985 opening of the Tennessee-Tombigbee Waterway promises to bring unprecedented growth to this area long hampered by demographic, cultural and economic health problems. Special attention to the environmental impact of the national development will be conveyed to the local departments through coordination with the Tenn-Tom Commission, allied state and local agencies, and the state level of the health department.

**Personal Health Services**—Utilization of clinical services for maternal, child health and family planning remained stable during the past year. Lack of private physician support continued to be one of the key barriers to optimal maternity services to indigent patients. Additional nurse practitioners, bringing the area number to four, helped the local departments meet 62 percent of the estimated in-need maternity population and 30 percent of the in-need population in well child programs.

The Pine Belt Birth Defects Prevention Council, with the PHA VI nurse director serving as an active member, sponsored two area educational workshops which were well attended by various medical disciplines. Two Clarke County physicians, dedicated to serving the public health needs of the area population, are now serving as medical advisors to the council. The special outreach clinic, available to all area health departments, was conducted twice in the Monroe County Health Department by Monroe County personnel and the University of South Alabama Department of Medical Genetics staff. Additional marketing is planned to more adequately meet the population's health needs.

In a continued attempt to upgrade the quality and accessibility of indigent health care, the local health departments continued to work closely with the Regional Perinatal Advisory Committee. Two PHA VI staff members serve on the committee and have encouraged funding indigent prenatal care through private physicians' offices. By August, the $25,000 designated for this service was exhausted and approximately 30 patients were turned away from the program for lack of funding.

The high risk, prenatal outreach and infant follow-along programs continue to be available to the local health departments. The resource teams from the University of South Alabama Medical Center continue to provide an essential service to the local nursing staff.

The local health departments in the majority of PHA VI counties continue to be dominant providers of services to home bound patients in the home health program. With the imposition of federal guidelines severely limiting hospital utilization, local home health nurses face the need for more critical nursing skills than in the past. Through on-site training by the area nurse director and workshops by the state Bureau of Public Health Nursing, this challenge continues to be met. The area director also conducts bimonthly meetings with the local nurse supervisors which provide the opportunity for continuing education and information concerning policy changes in home health and other nursing programs.

Third party reimbursement (Medicare and Medicaid) is essential in maintaining the nursing skills and fiscal integrity to serve the acute needs of paying and indigent patients in the home health program. For this reason, area staff and local management personnel have been encouraged to assume an active interest in the Alabama Association of Home Health Agencies which impacts on state and national policy. At least two area personnel are now serving active roles in the association. To create better patient and physician awareness of available services, each county has been asked to develop a comprehensive marketing plan. Progress on implementation of the plan will be monitored in quarterly program management meetings with the area and local staffs.

Baldwin and Conecuh counties have completed home health expansion grants. Monroe County received $40,000 in the fall of 1984 to expand home health services in fiscal year 1985.

Growth in WIC was stable despite changing income guidelines and the loss of the area nutrition coordinator. Two local nutritionists agreed to serve as information resources for the area until a new nutrition coordinator could be appointed. Continued emphasis was placed upon providing more comprehensive services by blending WIC with other local department clinics. Modest progress was realized and higher goals are set for the coming year through program management.

There were 115 new cases of tuberculosis reported in PHA VI in 1984. This is an increase of 24 cases over the 1983 total. The open case register for PHA VI, as of December 31, 1984, contained 72 active cases and 49 other cases and/or suspects on multiple drug therapy. Mobile and Dallas counties continued to report the largest number of cases.

The tuberculosis program conducted 319 physician staffed outpatient clinics in PHA VI in 1984. There were 81 individual X-ray clinics in the various 13 counties in 1984. This does not include Mobile County where the X-ray department remains open on a daily basis.

Working through the local environmentalists and nursing staffs, the number of day care center immunization records checked increased over 100 percent. Greater accountability for vaccine was emphasized to the local department and significant improvements in high risk patient reporting should become apparent by the summer of 1985.

PHA VI saw an 18.7 percent decrease in reported morbidity of gonococcal infections in fiscal year 1984. Reported gonococcal pelvic inflammatory disease decreased 44.7 percent. Mobile County began the year with a major outbreak of penicillinase-producing *Neisseria gonorrhoeae*. However, by early March, the epidemic was abated and no cases were reported after June 1984. Although early syphilis morbidity decreased in most of the state, PHA VI experienced an increase due to a major outbreak in the Atmore prison system in Escambia County and a Sumter/Marengo county outbreak.

The venereal disease control program continued to operate scheduled clinics in Baldwin, Dallas and Mobile counties. Private physicians and public health nurses, with the support of area VD representatives were responsible for the VD effort in the other counties. Four additional representatives were hired during the latter part of 1984. With this added personnel and intensive effort, significant progress in reducing morbidity and improvement in the overall venereal disease program should be achieved in 1985.

To provide a more systematic approach to public health management in PHA VI, a new program management system will be initiated in 1985. With the local management staff, goals will be set in each program and monitored quarterly in conjunction with the state Program Performance Report and current cost accounting figures. By analyzing the programs' strengths and weaknesses, the local team should have a more useful tool for managing the growing complexities and challenges of public health.

# CHART 2-1
# PUBLIC HEALTH AREAS
# 1984

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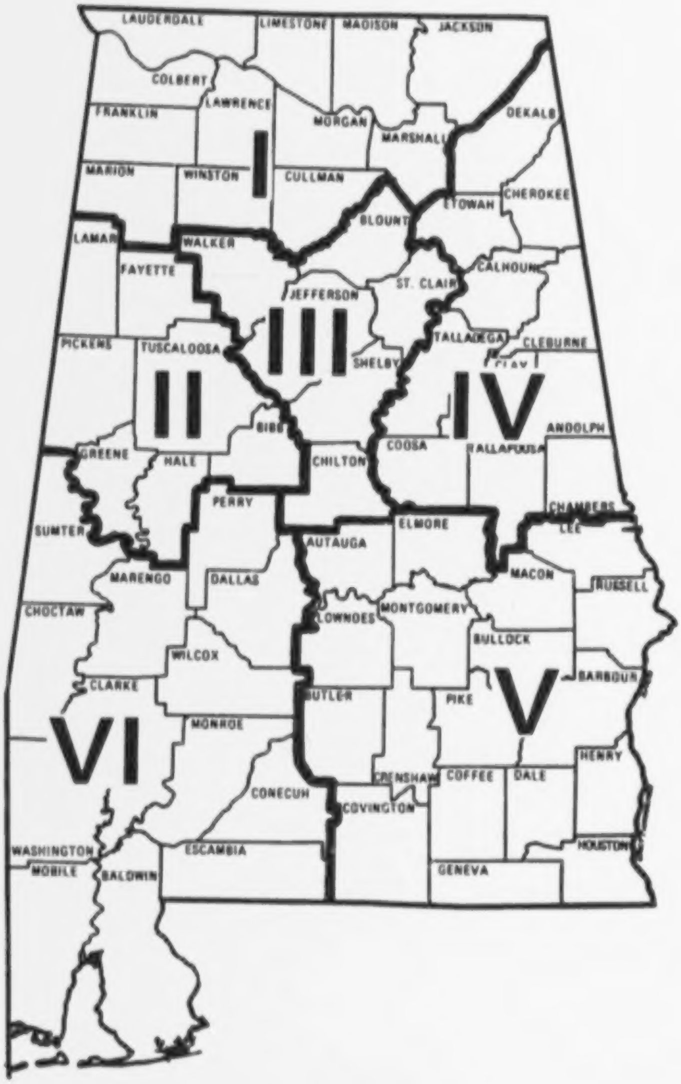
LAUDERDALE
LIMESTONE
MADISON
JACKSON
COLBERT
LAWRENCE
FRANKLIN
MORGAN
MARSHALL
DEKALB
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MARION
WINSTON
CULLMAN
CHEROKEE
ETOWAH
BLOUNT
LAMAR
WALKER
FAYETTE
CALHOUN
JEFFERSON
ST. CLAIR
III
PICKENS
TUSCALOOSA
TALLADEGA
CLEBURNE
SHELBY
CLAY
II
IV
ANDOLPH
BIBB
GREENE
HALE
CHILTON
COOSA
TALLAPOOSA
CHAMBERS
LEE
PERRY
SUMTER
ELMORE
AUTAUGA
MARENGO
DALLAS
MACON
RUSSELL
CHOCTAW
LOWNDES
MONTGOMERY
BULLOCK
WILCOX
CLARKE
BARBOUR
BUTLER
PIKE
V
MONROE
VI
HENRY
CRENSHAW
COFFEE
DALE
CONECUH
COVINGTON
WASHINGTON
ESCAMBIA
HOUSTON
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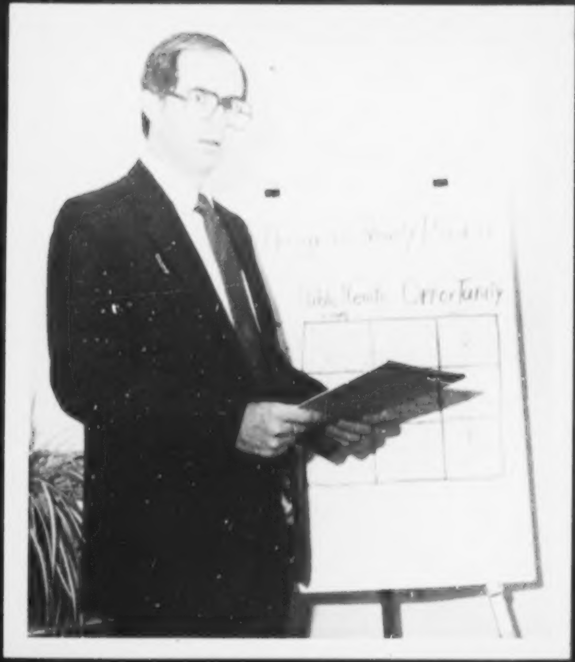
# Bureau of Area Health Services



# BUREAU OF AREA HEALTH SERVICES

The Bureau of Area Health Services provided management support services to the state health officer, assistant state health officers, and state program staffs to accomplish public health goals during 1984.

The Program Standards Performance Report, a management tool of the Alabama Department of Public Health, was maintained. The bureau worked with program staffs of other units of the department and with the assistant state health officers to produce this report quarterly. This year's activities include the development of program performance standards. The format for these standards was revised to include optimal targets for the various programs in addition to the established planned and efficiency targets. Information in these reports appears in quarterly performance reports prepared by the State Budget Office for the governor and Alabama Legislature. The report is also used by the State Committee of Public Health, the state health officer, the assistant state health officers and program directors in determining where management action is needed.

With staff support from this bureau, the Program Priorities Committee defined funding priorities for fiscal years 1985 and 1986. Measures of public health opportunity for each major program were compared to current levels of program activity and cost to prioritize those programs in greatest need of increased funding.

**Priority Level I**

Food Inspection
On-site Sewage Disposal
Sexually Transmitted Diseases
Health Facility Licensure
Family Planning

**Priority Level II**

Radiological Health
Dental Health
Perinatal Project
Vector Control
Maternity Clinic
Child Health
Women, Infants, and Children (WIC) Nutrition Services
Hypertension Control
Cancer Detection

**Priority Level III**

Emergency Medical Services

Implementation of a unified medical record system was a major effort of the bureau and local health departments this year. Distribution of equipment and supplies was accomplished and a complete instruction manual was developed. All county health departments prepared to or had implemented the system by year's end.

Study of computer needs and designs in county health departments continued this year. A survey of Alabama county health departments was conducted and systems of other states were evaluated. Staff devised a plan for computer software development for consideration by the department in 1985.

The County Activity Report was revised. Emphasis was placed on streamlining the report to reduce paper work in local health departments.

A refugee grant program which supports refugee services in seven county health departments was continued during fiscal year 1984. In this program 267 refugees were screened for health problems.

The Preventive Health and Health Services Block Grant administered by this bureau was $1,473,214, of which $50,727 was earmarked for rape prevention. The amount was a small increase over the fiscal year 1983 grant award of $1,442,173. As in previous years, the only federal requirements for administration were those set out in the federal legislation, and the state has been given considerable latitude in interpreting the legislative requirements. Thirty-seven percent of the grant was used to support the central and branch laboratories; 21 percent for hypertension control; 14 percent for emergency medical services; and the remainder for health education, fluoridation promotion, community health services coordination, vector control and administration of the grant. Activities of these programs are reported elsewhere in this report. The four funded rape prevention programs reported a total of 658 clients.

The bureau continued to provide emergency management services with the Alabama Emergency Management Agency and liaison with the State Health Planning Agency.

## Division of Community Health Services Coordination

The Division of Community Health Services Coordination continues to support the Bureau of Area Health Services' central administrative planning functions at the rural community level. However, as a result of the 1984 implementation of a National Health Service Corps contract and a Primary Care Cooperative agreement, both with the federal Bureau of Health Care and Delivery Assistance, the division has experienced a shift of responsibilities from Preventive Block Grant Program administration to the placement and management of National Health Service Corps physicians in Alabama.

As the state's contractor with the National Health Service Corps, the division supports the goal of strategic allocation of physicians in Alabama through a number of interrelated activities. Accurate assessments of county and subcounty area needs for additional health manpower are basic and vital components of the physician placement process. According to terms of the contract the division, in coordination with the State Health Planning Agency and local input, is responsible for updating a statewide data base for the designation and revalidation of health manpower shortage areas. This activity has greatly enhanced the division's capability to identify specific communities in the state which meet fiscal and administrative criteria to support a local medical practice.

The division's recruitment of health manpower is primarily from a pool of physicians with a three to four-year obligation to serve in health manpower shortage areas. Physician placements are made which are commensurate with both community needs and physician career objectives to the greatest extent possible.

Management of both practice sites and physicians is performed with two objectives in mind. First is the fulfillment of obligees' service commitments. Second is the development of viable, productive medical practices that will retain the physicians beyond their service obligations. During 1984 the division matched approximately 40 physicians to needy sites in Alabama. Most of these will begin practice in July 1985, once residency programs are completed.

In addition to the National Health Service Corps contract, a Primary Care Cooperative agreement was finalized in 1984. Under agreement provisions, the Alabama Department of Public Health shared in the review of Section 330 Project data, performance reports, and new or continuing project applications with the Bureau of Health Care and Delivery Assistance. The goal of this review was to obtain department recommendations for the strategic placement of projects, to enhance project activities, and to coordinate services. A primary care working committee was developed and convened for carrying out advisor responsibilities toward fulfilling agreement terms.

A matter of concern for the division, related to both the National Health Service Corps contract and Primary Care Cooperative agreement is the continued provision of quality primary care health services in the state's rural areas. This has special significance in light of possible future reductions in federal funding and National Health Service Corps medical manpower. Stabilization of these services will be sought through the building of primary care consortia for shared medical services and administration. This will receive much emphasis during 1985 and 1986. Such consortia will be mutually planned with the state's Primary Care Association and the central and regional Bureau of Health Care and Delivery Assistance offices. One implication of the consortia concept will be the merger of primary care and National Health Service Corps activities in Alabama. This will most likely result in a new cooperative relationship between the Alabama Department of Public Health and the Bureau of Health Care and Delivery Assistance.

## Division of Emergency Medical Services

The function of the Division of Emergency Medical Services is to regulate, inspect and license providers of prehospital care. In fulfilling its responsibility in 1984, the division administered standardized written examinations for licensure to 1,521 emergency medical technician-basics, 423 emergency medical technician-intermediates and 42 emergency medical technician-paramedics.

During 1984, three-year state licenses were issued to 1,612 EMT-basics, 548 EMT-intermediates, 468 EMT-paramedics and 107 ambulance drivers.

Continuing education is mandatory for license renewal. EMS approved 114 courses and disapproved three courses. Determinations on four courses are pending. While the licenses of 2,694 individuals were recertified, the licenses of 265 persons were cancelled because they failed to obtain the required continuing education credits.

Emergency Medical Services inspected 301 ambulance vehicles and issued annual licenses to 138 ambulance service operators. Of these licenses, 93 percent were regular licenses and 7 percent were provisional or convalescent coach licenses.

Some 213 advanced life support providers were issued authorization to handle and use approved intravenous fluids and medications in the prehospital environment. Seventy-nine hospital pharmacies were authorized to supply intravenous fluids and medications to advanced life support providers.

Highlights of the year include regional emergency medical systems development. During the year medical control and accountability plans were approved by the State Committee of Public Health for the Southeast and Southwest Alabama EMS regions, completing the formal adoption of medical control plans among all six Alabama EMS regions. Significant progress was made in the refinement and degree of implementation of these plans throughout the state.

Strong emphasis was given toward the enhancement of emergency medical technician training. The National Registry EMT-Paramedic examination was adopted as a uniform prerequisite to emergency medical technician-paramedic licensure replacing nonstandardized examinations previously developed and administered separately by each of the eight approved EMT-paramedic training sites. The National Registry examination is a widely accepted national standard. Initial test results tentatively indicate a need for better student preparation for practical skills testing.

Continuing education requirements were changed to better assure the maintenance of technical skills and knowledge among the EMT-basics. Those are the approximately 4,300 persons who comprise the majority of EMTs providing prehospital care. EMT-basics must now acquire annual continuing education in the same manner as EMTs of higher classifications.

In the U.S. only 15 paramedic training institutions were accredited by the American Medical Association in 1984. Two of these were in Alabama—the University of Alabama at Birmingham's Regional Technical Institute and the University of Alabama at Huntsville's paramedic training programs. This represents the achievement of high training standards. Additionally, substantial progress toward similar accreditation was made by Gadsden State Junior College and the University of South Alabama programs.

The EMS Division provided technical assistance for a field study conducted by the Montgomery Fire Medics in which a 50/50 nitrous oxide and oxygen mixture was administered under direct physician orders to emergency patients in selected categories. The nitrous oxide, which was under a physician's supervision, was given to patients who were experiencing severe pain. The program was launched in February 1984 and approved for a 12-month continuation program. This study will provide a basis for future considerations concerning prehospital use of nitrous oxide by paramedic units.

The need for up-to-date, comprehensive EMS systems' legislation was addressed by the EMS Division. Following consideration by the State EMS Advisory Board, the conclusion was drawn that efforts to overhaul the existing law should be postponed until controversies among various providers can be resolved.

The division implemented a practice of applying individual ambulance vehicle inspection bumper stickers to vehicles which meet minimum state standards. These stickers are publicly visible evidence that the vehicles have been inspected annually.

Finally, in the area of data automation, software was developed and equipment and resources acquired to assure full implementation of automated emergency medical services licensure and continuing education procedures early in 1985.

CITY OF
MONTGOMERY
FIRE RESCUE
94

## TABLE 3-1
## COUNTY HEALTH DEPARTMENT ACTIVITIES
## 1984

| 1984 ACTIVITIES | VITAL STATISTICS | IMMUNIZATION | WELL CHILD MEDICAL CLINICS | WELL CHILD SCREENING CLINICS | WIC | HEALTH EDUCATION | SCHOOL HEALTH | DENTAL CARE | DENTAL HEALTH EDUCATION | FLUORIDE MOUTH RINSE | MATERNITY MEDICAL CARE | MATERNITY NURSING CARE | FAMILY PLANNING | TUBERCULOSIS | SEXUALLY TRANSMITTED DISEASE | HYPERTENSION | BLOOD PRESSURE SCREENING | CANCER DETECTION | HOME HEALTH CARE | FOOD AND WATER INSPECTION | SOLID WASTE ENFORCEMENT | VECTOR CONTROL | SEWAGE DISPOSAL INSPECTION | SUBDIVISION REVIEW | SWIMMING POOL INSPECTION | HOTEL, MOTEL AND JAIL INSPECTION | RABIES CONTROL | CHILD CARE FACILITY INSPECTION | FROZEN DESSERT SAMPLING | SCHOOL INSPECTION | FOOD MANAGER TRAINING | RETAIL FOOD STORE INSPECTION | COMPLAINT INVESTIGATION | FOOD SERVICE PLAN REVIEW | EPIDEMIOLOGY SURVEILLANCE | REFUGEE SCREENING | OTHER PROGRAMS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PUBLIC HEALTH AREA I |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NORTHWEST ALABAMA REGIONAL HEALTH DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COLBERT | X | X | X | X | X | X |  | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| FRANKLIN | X | X | X | X | X | X |  | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| LAUDERDALE | X | X | X | X | X | X |  | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| TRI-COUNTY DISTRICT HEALTH SERVICES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CULLMAN | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  |  |  | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| LAWRENCE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  |  |  |  | X |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| LIMESTONE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| MORGAN | X | X | X | X | X |  | X |  |  |  |  | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| JACKSON | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| MADISON | X | X | X | X | X | X | X |  | X | X |  |  | X | X | X |  | X | X |  | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X |  |
| MARION | X | X | X | X | X | X | X |  | X | X |  |  | X | X | X |  | X | X | X | X | X |  | X |  | X | X | X | X | X | X | X | X | X | X | X | • |  |
| MARSHALL | X | X | X | X | X | X |  |  | X |  |  |  | X | X | X |  | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| WINSTON | X | X | X | X | X |  | X |  |  | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| PUBLIC HEALTH AREA II |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WEST ALABAMA DISTRICT HEALTH DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BIBB | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| GREENE | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| LAMAR | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| PICKENS | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| TUSCALOOSA | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| FAYETTE | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X |  |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| HALE | X | X | X | X | X |  |  |  |  |  |  |  | X | X | X | X | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| PUBLIC HEALTH AREA III |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BLOUNT | X | X |  | X | X |  |  |  | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | • |  |
| CHILTON | X | X |  | X | X | X | X |  |  | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| JEFFERSON | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X |  | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 1 |
| ST. CLAIR | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | • | 2 |
| SHELBY | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • | 3 |
| WALKER | X | X |  | X | X | X | X |  |  | X |  | X | X | X | X |  | X | X | X | X | X |  | X | X | X | X | X |  | X | X | X | X | X | X | X | • | 4 |
| PUBLIC HEALTH AREA IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CALHOUN | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| CHAMBERS | X | X |  | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| CHEROKEE | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| CLAY | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| CLEBURNE | X | X | X | X | X | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| COOSA | X | X | X | X | X | X |  | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • | 5 |
| DEKALB | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • | 6 |
| ETOWAH | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • | 7 |
| RANDOLPH | X | X | X | X | X | X | X |  | X |  | X | X | X | X | X | X | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| TALLADEGA | X | X | X | X | X | X |  |  |  |  | X | X | X | X | X |  | X | X | X | X |  |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • | 8 |
| TALLAPOOSA | X | X |  | X | X | X |  |  |  |  | X | X | X | X | X |  | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| PUBLIC HEALTH AREA V |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AUTAUGA | X | X | X | X | X | X | X | X |  |  | X | X | X | X |  |  | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| BARBOUR | X | X |  | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| BULLOCK | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| BUTLER | X | X |  | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| COFFEE | X | X | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| COVINGTON | X | X |  | X | X | X | X |  |  | X |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| CRENSHAW | X | X | X | X | X | X | X |  | X | X |  |  | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| DALE | X | X |  | X | X | X |  |  | X | X |  |  | X | X | X |  | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| ELMORE | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X |  | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| GENEVA | X | X | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| HENRY | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| HOUSTON | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | 9 |
| LEE | X | X | X | X | X |  |  |  |  |  | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |
| LOWNDES | X | X | X | X | X | X | X |  |  |  | X |  | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| MACON | X | X | X | X | X | X |  |  |  |  | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| MONTGOMERY | X | X | X | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 10 |
| PIKE | X | X |  | X | X | X | X |  | X | X |  |  | X | X | X |  | X |  | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| RUSSELL | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| PUBLIC HEALTH AREA VI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GULF COAST DISTRICT HEALTH DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BALDWIN | X | X |  | X | X | X |  |  |  | X |  | X | X | X | X |  | X | X | X | X |  | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| CONECUH | X | X |  | X | X | X | X |  |  |  |  | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| ESCAMBIA | X | X |  | X | X | X |  |  |  |  |  | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| CHOCTAW | X | X |  | X | X |  |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| CLARKE | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| DALLAS | X | X |  | X | X | X | X |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X |  |
| MARENGO | X | X | X | X | X | X | X |  | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| MOBILE | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 11 |
| MONROE | X | X | X | X | X |  |  |  |  |  |  | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| PERRY | X | X |  | X | X | X |  |  |  |  |  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | • |  |
| SUMTER | X | X | X | X | X | X |  |  |  |  |  | X | X | X | X |  | X | X | X | X | X | X | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |
| WASHINGTON | X | X | X | X | X | X | X |  |  | X | X | X | X | X | X | X | X | X | X | X | X |  | X |  |  | X | X |  | X | X | X | X | X | X | X | • |  |
| WILCOX | X | X |  | X | X |  |  |  |  |  |  | X | X | X | X |  |  | X | X | X | X |  | X | X |  | X | X | X | X | X | X | X | X | X | X | • |  |

*When Requested

1—Child Health Care/Primary Care
Adult Medical Care/Primary Care
Adolescent Pregnancy Prevention Project

2—Infant Car Seat Loaner Program

3—Carbon Monoxide Testing

4—Infant and Toddler Restraint
Adult Health

5—Air Pollution

6—Summer Camp Program

7—Eye Clinic

8—Camp Inspection

9—Emergency Response
(Farley Nuclear Plant)

10—Diabetic Screening
Audio Testing

11—Foodhandlers' Permits
Pharmacy Service
Plumbing Inspection
Primary Care
Sudden Infant
Death Syndrome
Car Seat Loaner
Program

# Clinical Laboratory Administration

# CLINICAL LABORATORY ADMINISTRATION

The Clinical Laboratory Administration continued during the past fiscal year to implement new and specialized diagnostic testing procedures for public health programs to support the investigation and surveillance of communicable/infectious diseases. In addition, plans for a new laboratory in Mobile were completed and plans for a new facility in Dothan were initiated.

In April the Central Laboratory began examining serum specimens for the presence of hepatitis A and B antigen or antibody. The need for this service was determined to be critical and the decision was made to implement it even though additional funds were not available. Expensive reagent costs dictated that the service be limited to county health department patients. Enzyme Immuno Assay (EIA) testing is provided for outbreaks, suspected cases, and contacts of suspected cases of hepatitis. This testing is not offered for routine screening.

During the year, the Bureau of Serology evaluated the Abbott (EIA) Gonozyme procedure for the detection of *Neisseria gonorrhoeae*. Approximately 500 specimens from females in Montgomery and Jefferson counties were examined to determine if this modified procedure were more sensitive than the original Gonozyme assay. When compared to the standard culture method the Gonozyme II assay produced a specificity of 97 percent and a sensitivity of 74 percent. These findings were later confirmed by studies conducted in other laboratories. Consequently, because of the low sensitivity the decision was made not to use the Gonozyme II procedure. Other EIA procedures evaluated included: Rotazyme (rotavirus), Rubazyme M (rubella IgM), Corzyme M (hepatitis B core IgM) and Rubella RQ (rubella antibodies).

In June 1984 the Bureau of Microbiology established a statewide Filth Laboratory for the analysis of food products for the presence of foreign matter and decomposition. This laboratory is used to support the Environmental and Facility Standards Administration's Bureau of Inspection. Thirty-two samples were received from July through September and significant contamination was found in 16 samples.

The number of confirmed cases of animal rabies continued to increase at an alarming rate in Alabama. An epizootic or epidemic of rabies was experienced in 16 counties in the southeast quadrant of the state. During the fiscal year, 2,931 specimens were examined and 98 positives were detected. Fifty-nine of these positives or 60 percent were submitted from the 16 county area. The state health officer scheduled a news conference for early in January 1985 to declare the existence of a rabies epizootic in the affected counties and to request the assistance of all state, county and municipal officials in these counties to reduce the incidence and risk of infection.

After three years of frustrations, hard work and the outstanding cooperation of Auburn University and the Mobile Board of Water and Sewer Commissioners, construction of a new branch laboratory in Mobile finally became a reality. Through the efforts of both Auburn and the commissioners, a 3.5 acre building site (valued at $200,000 to $300,000) adjacent to the Auburn University Experimental Station was deeded at no cost to the Alabama Department of Public Health. The deed, however, did contain a reversion clause which stated that the property would revert back to the board in the event it were no longer used for a state health laboratory. Once the site was secured an architectural firm completed the plans. The department accepted bids and awarded the contract to the low bidder. Construction began in October 1984 and is scheduled for completion in April 1985.

## Administrative Support Services Division

Administrative Support Services processed all requisitions from the Central and branch laboratories, ordered and distributed the supplies and equipment required for operation, and kept inventory records.

The packing room kept an adequate inventory of the different kits to be distributed by the Clinical Laboratory Administration to the various state, county and local health departments as well as private physicians.

The stockroom personnel worked in conjunction with both the purchasing and packing room sections to fill the orders for the Clinical Laboratory Administration, the public sector and the private sector.

Supporting services for the administrative support section included mail pickup and delivery, maintenance and janitorial services.

Personnel included one microbiologist IV, one account clerk II, one account clerk I, one clerk stenographer II, five laborers, one stock clerk II, one stock clerk I, three laboratory technician I's, one biomedical engineering technician II and one biomedical engineering technician I.

## Division of Scientific Services

**Media**—In addition to preparing 410,000 Modified Thayer-Martin plates (MTM) for use in the statewide gonorrhea screening program, the media laboratory prepared 361 different media, reagents and solutions which include 21 new media and the attendant procedures for their preparation for use in the Central Laboratory. The quantity of each follows.

**Media and Reagents**

| | |
|---|---|
| Enteric Bacteriology | 766 liters |
| General Bacteriology | 464 liters |
| GC | 7,014 liters |
| Sanitary Bacteriology | 303 liters |
| Strep | 30 liters |
| CF | 55 liters |
| Mycology | 167 liters |
| Regular TB | 929 liters* |
| Special TB | 453 liters |
| Miscellaneous | 55 liters |
| TOTAL VOLUME | 10,236 liters |

*This volume reflects cracking aseptically and straining 352 dozen fresh eggs for use in Lowenstein-Jensen medium and handling 140 pints of expired human blood for use in penicillin blood agar.

**Solutions**

| | |
|---|---|
| FA | 343 liters |
| Parasitology | 257 liters |
| IFA | 411 liters |
| Milk and Water | 903 liters |
| TOTAL VOLUME | 1,914 liters |

This section also prepared 25,871 sterile milk and water sample bottles for statewide distribution and 5,620 dilution blanks for use in the Central Laboratory milk testing program.

In addition, the water purification system used by the entire laboratory is monitored and maintained by this section. This year the laboratory changed from the reverse osmosis system to three large deionization tanks. This entails several daily checks of pressure, gauges, motors, pumps, lights, iodine levels and monthly bacterial counts. During the year 21 filter changes were made for the ultra-purification system.

**Washroom**—Approximately 1.5 million pieces of glassware and other equipment were washed and/or wrapped and sterilized during the year. In addition to decontaminating all specimens delivered by the various sections of the laboratory, this unit sterilized all media and solutions, a procedure involving constant monitoring of the temperature, pressure gauges and timers of seven autoclaves.

Scientific Services employed one microbiologist IV, one microbiologist III, two laboratory technician II's, five laboratory technician I's, one laboratory aide II and two laborers.

## Clerical Services Division

More than 503,906 reports were mailed from the Central Laboratory in fiscal year 1984. Handling the telephone switchboard, typing and mailing reports, maintaining personnel records, and numerous other clerical functions were carried out by one clerk IV, one clerk stenographer III, two clerk typist III's, one clerk III and eight clerk typist II's.

# BUREAU OF MICROBIOLOGY

## General Bacteriology Division

This section served as a reference laboratory for private and hospital laboratories statewide in the identification of bacterial cultures. The following organisms were reported in 1984.

| Organisms | Number of Isolates |
|---|---|
| *Achromobacter xylosoxidans* | 3 |
| *Acinetobacter calcoaceticus* var. *anitratus* | 4 |
| *Acinetobacter calcoaceticus* var. *lwoffi* | 11 |
| *Actinobacillus actinomycetemcomitans* | 2 |
| *Actinomyces* species | 1 |
| *Actinomyces israelii* | 1 |
| *Actinomyces naeslundii* | 2 |
| *Actinomyces odontolyticus* | 2 |
| *Aerococcus* species | 2 |
| *Aeromonas hydrophila* | 8 |
| *Agrobacterium radiobacter* | 1 |
| *Alcaligenes denitrificans* | 4 |
| *Alcaligenes faecalis* | 2 |
| *Bacillus* species | 9 |
| *Bacillus* sp.—$H_2S$ + biotype 1 poss. alvei | 2 |
| *Bacillus brevis* | 5 |
| *Bacillus cereus* | 6 |
| *Bacillus circulans* | 4 |
| *Bacillus megaterium* | 2 |
| *Bacillus pumilus* | 3 |
| *Bacillus subtilis* | 3 |
| *Bacteroides* species | 3 |
| *Bacteroides fragilis* | 7 |
| *Bacteroides hypermegas* | 1 |
| *Bacteroides ureolyticus* | 1 |
| *Branhamella catarrhalis* | 11 |
| *Campylobacter jejuni* | 15 |
| *Cardiobacterium hominis* | 1 |
| *Citrobacter amalonaticus* | 1 |
| *Clostridium bifermentans* | 1 |
| *Clostridium difficile* | 1 |

| | |
|---|---|
| *Clostridium innocuum* | 1 |
| *Clostridium perfringens* | 5 |
| *Clostridium septicum* | 1 |
| *Clostridium tertium* | 2 |
| *Corynebacterium* species | 4 |
| *Corynebacterium aquaticum* | 1 |
| *Corynebacterium* Group A-3 | 1 |
| *Corynebacterium* Group A-4 | 1 |
| *Corynebacterium* Group B-1 | 1 |
| *Corynebacterium* Group D-2 | 1 |
| *Corynebacterium* Group E | 2 |
| *Corynebacterium* Group F-2 | 1 |
| *Corynebacterium* Group G-2 | 2 |
| *Corynebacterium* Group J-K | 6 |
| *Corynebacterium minutissimum* | 4 |
| *Corynebacterium pseudodiphtheriticum (Gr. D-1)* | 1 |
| DF-3 | 2 |
| *Edwardsiella tarda* | 2 |
| Enteric Group 17 | 1 |
| *Enterobacter* species | 1 |
| *Enterobacter aerogenes* | 1 |
| *Enterobacter agglomerans* | 4 |
| *Enterobacter cloacae* | 8 |
| *Escherichia coli* | 14 |
| *Flavobacterium* species | 1 |
| *Flavobacterium* species—Group II-B | 3 |
| *Flavobacterium meningosepticum* | 2 |
| *Flavobacterium odoratum* | 1 |
| *Fusobacterium nucleatum* | 1 |
| *Gardnerella vaginalis* | 27 |
| *Haemophilus aphrophilus* | 6 |
| *Haemophilus influenzae*—unable to type | 4 |
| *Haemophilus influenzae*—Type B | 5 |
| *Haemophilus parainfluenzae* | 17 |
| *Haemophilus paraphrophilus* | 4 |
| *Klebsiella ozaenae* | 2 |
| *Kluyvera cryocrescens* | 1 |
| *Lactobacillus* species | 3 |
| *Lactobacillus casei* | 1 |
| *Listeria monocytogenes* | 1 |
| *Micrococcus luteus* | 1 |
| *Moraxella* species | 3 |
| *Moraxella atlantae* | 2 |
| *Moraxella nonliquefaciens* | 6 |
| *Moraxella osloensis* | 5 |
| *Moraxella urethralis* | 2 |
| *Mycobacterium rhodochrous* complex | 3 |
| *Neisseria cinerea* | 1 |
| *Neisseria gonorrhoeae* | 150 |
| *Neisseria lactamica* | 3 |
| *Neisseria meningitidis*—unable to type | 8 |
| *Neisseria meningitidis*—Group A | 2 |
| *Neisseria meningitidis*—Group B | 13 |
| *Neisseria meningitidis*—Group C | 6 |
| *Neisseria meningitidis*—Group L | 1 |
| *Neisseria meningitidis* W135 | 5 |
| *Neisseria mucosa* | 4 |
| *Neisseria sicca* | 2 |
| *Neisseria subflava* | 5 |
| *Pasteurella* species | 1 |
| *Pasteurella* sp. "n. sp. 1" | 1 |
| *Pasteurella haemolytica* bio. T | 1 |
| *Pasteurella multocida* | 3 |
| *Peptococcus* species | 1 |
| *Peptococcus asaccharolyticus* | 5 |
| *Peptococcus prevotii* | 3 |
| *Peptostreptococcus* species | 1 |
| *Peptostreptococcus anaerobius* | 3 |
| *Peptostreptococcus micros* | 1 |
| *Plesiomonas shigelloides* | 5 |
| *Propionibacterium* species | 3 |
| *Propionibacterium acnes* | 6 |
| *Propionibacterium avidum* | 1 |
| *Propionibacterium granulosum* | 1 |
| *Proteus mirabilis* | 1 |
| *Pseudomonas* species | 4 |
| *Pseudomonas aeruginosa* | 3 |
| *Pseudomonas alcaligenes* | 2 |
| *Pseudomonas cepacia* | 3 |
| *Pseudomonas diminuta* | 1 |
| *Pseudomonas maltophilia* | 3 |
| *Pseudomonas paucimobilis* | 3 |
| *Pseudomonas pseudoalcaligenes* | 3 |
| *Pseudomonas putida* | 2 |
| *Pseudomonas testosteroni* | 2 |
| *Pseudomonas thomasii* | 1 |
| *Pseudomonas vesicularis* | 2 |
| *Rothia dentocariosa* | 1 |
| *Salmonella heidelberg* | 1 |
| *Salmonella typhimurium* | 1 |
| *Serratia marcescens* | 1 |
| *Staphylococcus aureus* | 5 |
| *Staphylococcus epidermidis* | 6 |
| *Staphylococcus saprophyticus* | 1 |
| *Streptococcus*—Group A | 4 |
| *Streptococcus*—Group B | 3 |
| *Streptococcus*—Group D (enterococci) | 2 |
| *Streptococcus*—Group D (nonenterococci) | 1 |
| *Streptococcus*—Group G | 3 |
| *Streptococcus anginosus-constellatus* | 2 |
| *Streptococcus mitis* | 1 |
| *Streptococcus* MG—*intermedius* | 3 |
| *Streptococcus salivarius* | 1 |
| *Streptococcus uberis* | 2 |
| Vb-3 | 1 |
| *Veillonella alcalescens* | 1 |
| *Vibrio cholerae*—(other than O:1 Group) | 2 |
| *Vibrio fluvialis* | 1 |
| *Vibrio parahaemolyticus* | 2 |
| *Vibrio vulnificus* | 2 |
| *Wolinella succinogenes* | 2 |
| *Yersinia enterocolitica* | 5 |

| | |
|---|---|
| *Yersinia kristensenii* | 1 |
| II—f | 4 |
| IV—e | 1 |

The General Bacteriology Division also cultured a variety of clinical specimens for staphylococci, diphtheria bacilli, *Bordetella pertussis,* Legionnaire's disease bacterium and brucellosis.

Of these, there were 158 Legionella specimens tested and 20 were positive by the Direct Fluorescent Antibody (DFA) procedure. There were 44 specimens examined for *Bordetella pertussis.* One was confirmed by culture and eight were reported positive by fluorescent antibody only.

There were 23 positive staphylococci reported of 34 tested, nine throat swabs cultured for the diphtheria bacilli and two blood cultures tested for brucellosis.

**Quality Control**—The Quality Control Section examined media, reagents, discs and antisera used by the various sections of the entire laboratory Modified Thayer-Martin media, prepared by the media laboratory for the statewide gonorrhea screening program, was quality controlled in this section on a weekly basis. Media required for other divisions of the Central Laboratory were also quality controlled in this area.

**Streptococci**—The Group A *streptococcus* screening program has been reinstated on a limited basis. Last year 453 specimens were processed with 16 cultures showing the presence of Group A streptococci.

## Enteric Bacteriology Division

In fiscal year 1984, 2,970 stool specimens and cultures were submitted for serotyping through county health departments and private and hospital laboratories. The 786 salmonellas and 107 shigellas identified and serotyped were as follows:

*Salmonella enteritidis*-serotype

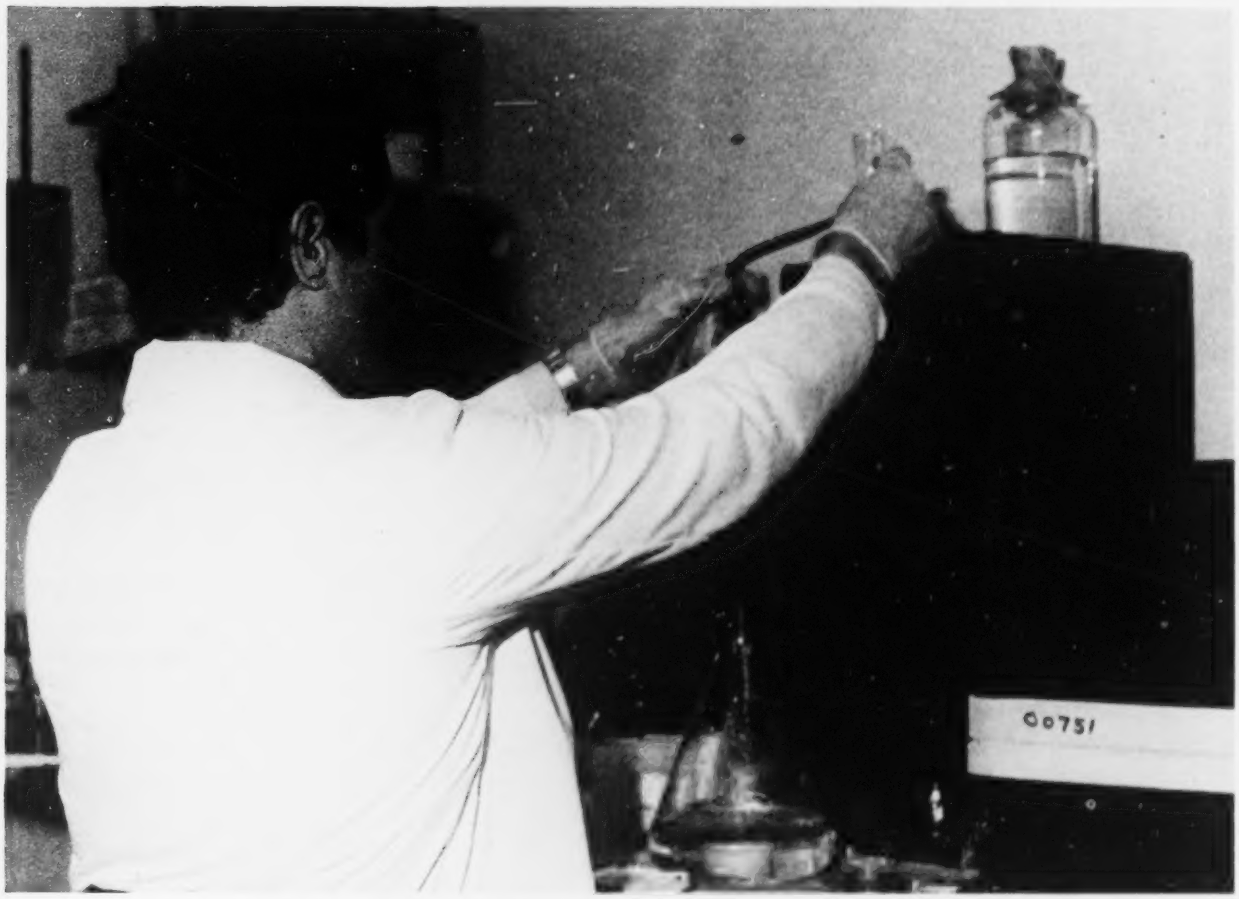
| | |
|---|---|
| Agona | 23 |
| Alachua | 2 |
| Bareilly | 3 |
| Berta | 1 |
| Blegdam | 10 |
| Blockley | 17 |
| Bousse | 1 |
| Braenderup | 4 |
| Brandenburg | 24 |
| Bredeney | 1 |
| Cerro | 5 |
| Chester | 1 |
| Concord | 1 |
| Derby | 9 |
| Dusseldorf | 3 |
| Enteritidis | 10 |
| Give | 5 |
| Hadar | 2 |
| Harrdt | 1 |
| Heidelberg | 85 |
| Ibadan | 5 |
| Indiana | 1 |
| Infantis | 27 |
| Inverness | 2 |
| Irumu | 10 |
| Israel | 1 |
| Javiana | 41 |
| Kentucky | 1 |
| Litchfield | 5 |
| London | 2 |
| Manhattan | 8 |
| Mbandaka | 12 |
| Montevideo | 11 |
| Mississippi | 24 |
| Muenchen | 58 |
| Muenster | 6 |
| S. II Nachshonium* | 1 |
| Newport | 24 |
| Ohio | 2 |
| Oranienburg | 2 |
| Paratyphi—B | 5 |
| Reading | 1 |
| Rubislaw | 1 |
| Saint Paul | 14 |
| Salmonella species | 27 |
| Schwarzengrund | 11 |
| Sendai | 2 |
| Senftenberg | 1 |
| Stanley | 3 |
| Stanleyville | 4 |
| Teddington | 4 |
| Thompson | 3 |
| Typhi | 1 |
| Typhimurium | 256 |
| Urbana | 1 |
| Virchow | 1 |
| TOTAL | 786 |

| | |
|---|---|
| *Shigella sonnei* | 100 |
| *Shigella flexneri* Type II | 5 |
| *Shigella flexneri* Type IV | 1 |
| *Shigella boydii* Type VII | 1 |
| TOTAL | 107 |

*Sub Genus of Salmonella ∴ Sub Genus II

## GC Screening Division

The Central Laboratory screened 64,479 cultures for the presence of *Neisseria gonorrhoeae* and found 5,832 (9 percent) positive. All positives were screened for beta lactamase production and 33 penicillin resistant cultures were detected.



## Parasitology Division

A total of 15,784 specimens was examined for parasitic infection during the 1984 fiscal year, and of these 1,955 positives were reported. The following intestinal parasites were identified:

| | |
|---|---|
| Hookworm | 105 |
| *Ascaris lumbricoides* | 191 |
| *Enterobius vermicularis* | 119 |
| *Trichuris trichiura* | 50 |
| *Strongyloides stercoralis* | 31 |
| *Hymenolepis nana* | 11 |
| *Taenia* sp. | 3 |
| *Entamoeba coli* | 369 |
| *Endolimax nana* | 332 |
| *Giardia lamblia* | 949 |
| *Entamoeba hartmanni* | 91 |
| *Entamoeba histolytica* | 38 |
| *Chilomastix mesnili* | 9 |
| *Iodamoeba butschilii* | 41 |
| *Schistosoma mansoni* eggs | 5 |
| *Clonorchis sinensis* | 46 |

In addition, five blood smears were found to be positive for malaria.

## Rabies Division

The Central Laboratory received 1,106 animal brains for rabies examination during fiscal year 1984. Fifty-nine of the animals were found to be positive by fluorescent antibody procedures. The following species of animals were reported as positive for rabies:

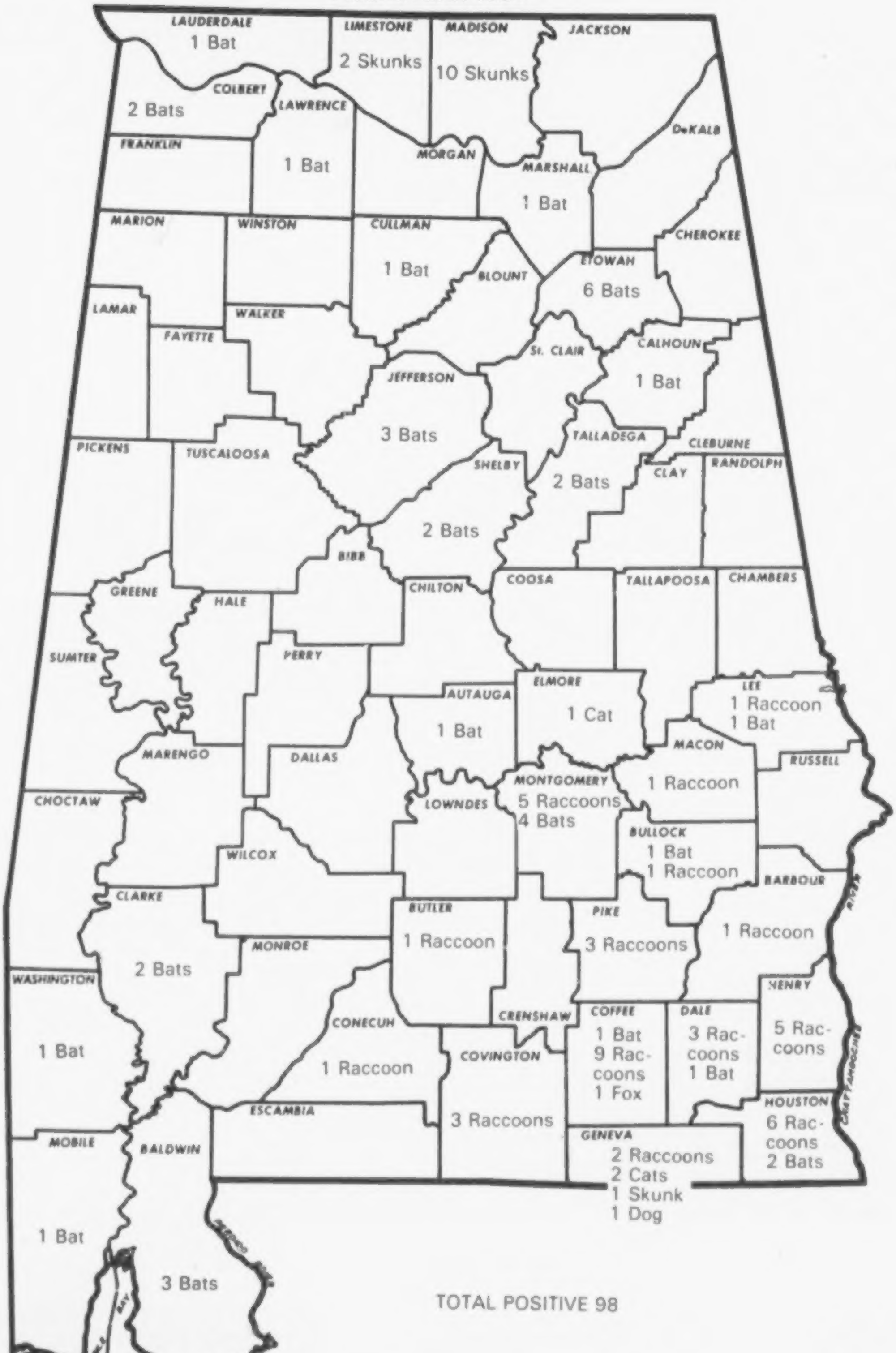
| | |
|---|---|
| Raccoons | 42 |
| Bats | 11 |
| Cats | 3 |
| Dogs | 1 |
| Foxes | 1 |
| Skunks | 1 |

This section also prepared the rabies infected and normal mouse brain suspensions used in rabies testing at the Central and branch laboratories. Table 4-1 indicates positive rabies cases by county and month, while Chart 4-1 shows the rabid animals confirmed in each county.

# TABLE 4-1
# POSITIVE RABIES
# FISCAL YEAR 1984

| Counties | October | November | December | January | February | March | April | May | June | July | August | September | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autauga | | | | | | | | | | | 1 Bat | | 1 |
| Baldwin | 1 Bat | | | | | | | | 1 Bat | | | 1 Bat | 3 |
| Barbour | 1 Raccoon | | | | | | | | | | | | 1 |
| Bibb | | | | | | | | | | | | | |
| Blount | | | | | | | | | | | | | |
| Bullock | | | | | | 1 Bat | | | | | 1 Raccoon | | 2 |
| Butler | | | | | | | | | 1 Raccoon | | | | 1 |
| Calhoun | | | | | | | | | 1 Bat | | | | 1 |
| Chambers | | | | | | | | | | | | | |
| Cherokee | | | | | | | | | | | | | |
| Chilton | | | | | | | | | | | | | |
| Choctaw | | | | | | | | | | | | | |
| Clarke | | | | | | | | | | | 2 Bats | | 2 |
| Clay | | | | | | | | | | | | | |
| Cleburne | | | | | | | | | | | | | |
| Coffee | | 1 Raccoon | 1 Raccoon | | | 1 Fox | | 1 Raccoon | 2 Raccoons | | 3 Raccoons | 1 Bat<br>1 Raccoon | 11 |
| Colbert | | | | | | | 1 Bat | | | | 1 Bat | | 2 |
| Conecuh | | | | 1 Raccoon | | | | | | | | | 1 |
| Coosa | | | | | | | | | | | | | |
| Covington | 1 Raccoon | 1 Raccoon | | | | 1 Raccoon | | | | | | | 3 |
| Crenshaw | | | | | | | | | | | | | |
| Cullman | | | | | | | | | | | | 1 Bat | 1 |
| Dale | | | | 1 Raccoon | | | | | 1 Raccoon | | 1 Bat | 1 Raccoon | 4 |
| Dallas | | | | | | | | | | | | | |
| DeKalb | | | | | | | | | | | | | |
| Elmore | | | | 1 Cat | | | | | | | | | 1 |
| Escambia | | | | | | | | | | | | | |
| Etowah | | | | | | | | 2 Bats | | 1 Bat | 3 Bats | | 6 |
| Fayette | | | | | | | | | | | | | |
| Franklin | | | | | | | | | | | | | |
| Geneva | | 1 Skunk | | 1 Raccoon | | | | | | | 1 Raccoon<br>1 Dog<br>1 Cat | 1 Cat | 6 |
| Greene | | | | | | | | | | | | | |
| Hale | | | | | | | | | | | | | |
| Henry | 2 Raccoons | 2 Raccoons | | | | | | | 1 Racoon | | | | 5 |
| Houston | 1 Raccoon<br>2 Bats | | | 1 Raccoon | | 2 Raccoons | | | | 1 Raccoon | | 1 Raccoon | 8 |
| Jackson | | | | | | | | | | | | | |
| Jefferson | | | | | | | 1 Bat | | | | 2 Bats | | 3 |
| Lamar | | | | | | | | | | | | | |
| Lauderdale | | | | | | | | | | | | 1 Bat | 1 |
| Lawrence | 1 Bat | | | | | | | | | | | | 1 |
| Lee | | | | | | | | | 1 Raccoon<br>1 Bat | | | | 2 |
| Limestone | | | | 1 Skunk | | | | | | | | 1 Skunk | 2 |
| Lowndes | | | | | | | | | | | | | |
| Macon | | | | | | | | 1 Raccoon | | | | | 1 |
| Madison | | | | 1 Skunk | 2 Skunks | 1 Skunk | 5 Skunks | | 1 Skunk | | | | 10 |
| Marengo | | | | | | | | | | | | | |
| Marion | | | | | | | | | | | | | |
| Marshall | | | | | | | | | | | 1 Bat | | 1 |
| Mobile | | | | | | | | | | | 1 Bat | | 1 |
| Monroe | | | | | | | | | | | | | |
| Montgomery | | | | | | 2 Raccoons | 1 Raccoon | 1 Raccoon | | 1 Raccoon | 3 Bats | 1 Bat | 9 |
| Morgan | | | | | | | | | | | | | |
| Perry | | | | | | | | | | | | | |
| Pickens | | | | | | | | | | | | | |
| Pike | | | | | | | | 1 Raccoon | | | 1 Raccoon | 1 Raccoon | 3 |
| Randolph | | | | | | | | | | | | | |
| Russell | | | | | | | | | | | | | |
| St. Clair | | | | | | | | | | | | | |
| Shelby | | | | | | | 1 Bat | | | | 1 Bat | | 2 |
| Sumter | | | | | | | | | | | | | |
| Talladega | | | | | | | | | | | 2 Bats | | 2 |
| Tallapoosa | | | | | | | | | | | | | |
| Tuscaloosa | | | | | | | | | | | | | |
| Walker | | | | | | | | | | | | | |
| Washington | 1 Bat | | | | | | | | | | | | 1 |
| Wilcox | | | | | | | | | | | | | |
| Winston | | | | | | | | | | | | | |
| | 5 Raccoons<br>5 Bats | 4 Raccoons<br>1 Skunk | 1 Raccoon | 4 Raccoons<br>2 Skunks<br>1 Cat | 2 Skunks | 5 Raccoons<br>1 Bat<br>1 Skunk<br>1 Fox | 1 Raccoon<br>3 Bats<br>5 Skunks | 4 Raccoons<br>2 Bats | 6 Raccoons<br>3 Bats<br>1 Skunk | 2 Raccoons<br>1 Bat | 6 Raccoons<br>18 Bats<br>1 Cat<br>1 Dog | 4 Raccoons<br>5 Bats<br>1 Skunk<br>1 Cat | 98 |

## CHART 4-1
## POSITIVE RABIES MAP
## FISCAL YEAR 1984


LAUDERDALE
1 Bat
LIMESTONE
2 Skunks
MADISON
10 Skunks
JACKSON
COLBERT
2 Bats
LAWRENCE
1 Bat
FRANKLIN
MORGAN
MARSHALL
1 Bat
DeKALB
MARION
WINSTON
CULLMAN
1 Bat
BLOUNT
ETOWAH
6 Bats
CHEROKEE
LAMAR
WALKER
FAYETTE
St. CLAIR
CALHOUN
1 Bat
JEFFERSON
3 Bats
PICKENS
TUSCALOOSA
TALLADEGA
2 Bats
CLEBURNE
SHELBY
2 Bats
CLAY
RANDOLPH
BIBB
CHILTON
COOSA
TALLAPOOSA
CHAMBERS
GREENE
HALE
SUMTER
PERRY
ELMORE
1 Cat
AUTAUGA
1 Bat
LEE
1 Raccoon
1 Bat
MARENGO
DALLAS
MACON
1 Raccoon
RUSSELL
CHOCTAW
LOWNDES
MONTGOMERY
5 Raccoons
4 Bats
BULLOCK
1 Bat
1 Raccoon
WILCOX
CLARKE
2 Bats
BUTLER
1 Raccoon
PIKE
3 Raccoons
BARBOUR
1 Raccoon
MONROE
WASHINGTON
1 Bat
HENRY
5 Raccoons
CRENSHAW
COFFEE
1 Bat
9 Raccoons
1 Fox
DALE
3 Raccoons
1 Bat
CONECUH
1 Raccoon
COVINGTON
3 Raccoons
ESCAMBIA
HOUSTON
6 Raccoons
2 Bats
GENEVA
2 Raccoons
2 Cats
1 Skunk
1 Dog
MOBILE
1 Bat
BALDWIN
3 Bats
MOBILE BAY
PERDIDO RIVER
CHATTAHOOCHEE RIVER
GULF OF MEXICO

TOTAL POSITIVE 98

**Animal House**—Animal brains and glands were removed for rabies examination. Mice were bred for use in laboratory testing. Animals were prepared for toxicity testing and mouse inoculation tests. Mice were used in the preparation of rabies reagents (CVS and NMB). These reagents were distributed to the branch laboratories.

## Sanitary Bacteriology Division

**Food Bacteriology**—In Food Bacteriology, the presence of bacteria associated with foodborne illness was detected in 13 of 169 samples submitted for examination. The organisms and the food samples in which each was found are listed as follows.

| Organism | Food |
|---|---|
| *Staphylococcus*—<br>coagulase positive | pork sausage (1), turkey salad (1), barbeque (3), turkey (1), ham (1) |
| Enterotoxin | turkey (1), ham (1) |
| *Bacillus cereus* | boiled eggs (1), tuna salad (1), barbeque ribs (1) |
| *Clostridium perfringens* | barbeque (1), turkey and gravy (1), ham and biscuit (1) |
| *Escherchia coli* | pork neck bones (1) |

**Water Bacteriology**—The 16,858 water samples received from public and private supplies were tested for bacterial contamination and residual chlorine. A coliform count of over four per 100 milliliter, indicating possible contamination, was reported on 1,039 samples.

**Dairy Bacteriology**—This year 4,548 milk and dairy products were examined in accordance with procedures outlined in the 14th edition of *Standard Methods for the Examination of Dairy Products*. Of these samples, 800 failed to meet one or more of the criteria of acceptability.

## Division of Rh

The Rh Division performed 59,254 examinations on 50,271 specimens for Rh, rubella or VDRL testing. The $Rh_0(D)$ screening on 12,438 specimens detected:

| | |
|---|---|
| 3,365 | $Rh_0(D)$ Negatives |
| 59 | $D^u$ Variants |
| 107 | Major Antibodies |

The 107 samples with major antibodies were forwarded to the CDC for identification of antibodies which were considered risk factors in hemolytic diseases of the newborn.

$Rh_0(D)$ typing and $D^u$ variant testing were performed on two proficiency testing specimens provided by the CDC. Results obtained were 100 percent in agreement and reproducibility.

An enzyme-linked immunosorbent assay (ELISA) type determination for rubella IgG antibodies was performed on 12,197 single serums to establish the immune status and/or define the need for rubella vaccinations. Test results of 10,460 patient samples indicated previous rubella infection with probable immunity. The absence of IgG antibodies in 1,668 samples indicated a probable lack of immunity.

A standard test for syphilis was performed on the maternal and child health samples submitted in the first and third trimester of pregnancy. The VDRL slide agglutination test performed on 25,596 samples detected 260 reactives.

Proficiency testing samples were provided by the Premarital Approval and Proficiency Testing Laboratory. Results obtained on the 40 samples were 100 percent in agreement and reproducibility with reference laboratories.

Personnel consisted of one microbiologist IV, one microbiologist I, one laboratory technician III and a laboratory technician I who was employed on a half-day basis.

**Other Activities**—All sections in the Bureau of Microbiology participated in proficiency testing programs. The Centers for Disease Control provided check samples to General and Enteric Bacteriology and to Parasitology. The GC section served as a reference laboratory for the CDC and the Tennessee State Health Department in the isolation and identification of *Neisseria gonorrhoeae*. The Food and Drug Administration administered the proficiency testing program in food bacteriology and the state laboratory evaluation officer for water and dairy products provided check samples in this area. This division began a study of a transport method for urine cultures.

Microbiologists from the Bureau of Microbiology attended the following courses:

1. "Laboratory Methods for Detecting Rabies"
2. "Microanalytical Analysis of Foods for Filth Decomposition and Foreign Objects"
3. "Microanalytical Biology for Food Sanitation Control Analysts"
4. "Laboratory Identification of Cryptosporidium"

The staff consisted of two microbiologist IV's, six microbiologist III's, four microbiologist II's, one microbiologist I, two laboratory technician II's and one laboratory technician I.

# BUREAU OF SEROLOGY

## Syphilis Serology Division

The Syphilis Serology Division performed 54,756 examinations on 48,903 specimens utilizing the VDRL Slide Agglutination Test. The results of these examinations are listed in Table 4-2.

## TABLE 4-2
## SYPHILIS EXAMINATIONS
## 1984

| VDRL Slide Test | Specimens | Reactives | Examinations | Percent Reactives |
|---|---|---|---|---|
| Routine | 39,493 | 4,766 | 45,035 | 12.0 |
| Premarital | 8,359 | 209 | 8,667 | 2.5 |
| Spinal Fluids | 1,051 | 3 | 1,054 | |

Control sera were furnished to branch and clinical laboratories on request. In addition quality control testing was performed on reagents before distribution to branch laboratories.

Eight samples received from CDC as part of a proficiency testing program achieved 100 percent agreement.

**Premarital Approval and Proficiency Testing**—All laboratories performing premarital blood tests for syphilis were proficiency tested for certification. The Central Laboratory administered a quality control program for 108 Red Cross, blood banking and clinical laboratories performing these tests. Also laboratories licensed by the Clinical Laboratories Improvement Act (CLIA) to perform syphilis serology on an interstate basis were evaluated during the year. Quality control was accomplished by:

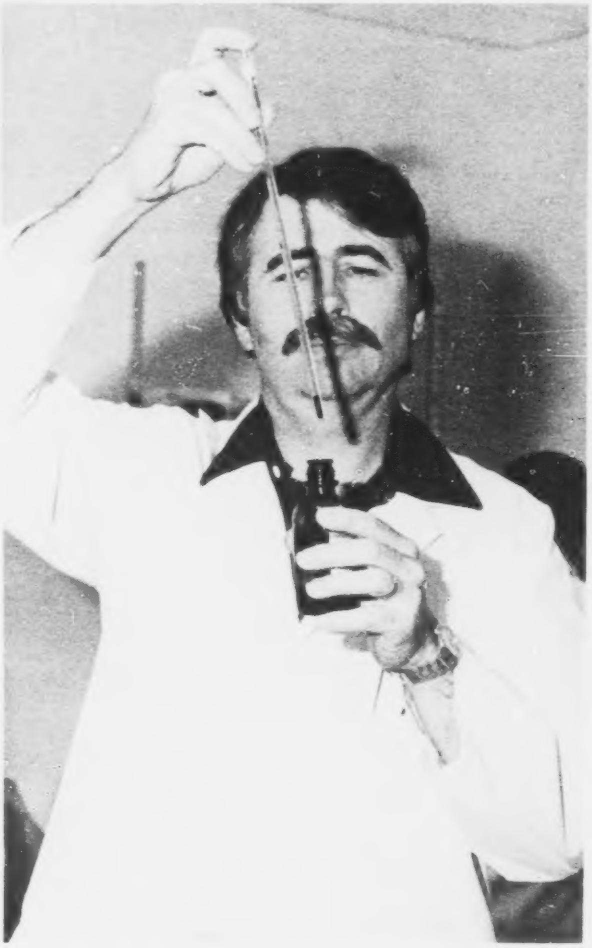
1. Sending 10 prepared serum specimens of graded reactivity five times a year.
2. Evaluating and reporting results.
3. Inspecting each laboratory at least once every 2 years and more often if needed.
4. Consulting with laboratory personnel.
5. Training when a refresher course is indicated.

Adequacy of test performance was determined by the average disagreement of no more than 10 percent and at least a 90 percent reproducibility on paired serums.

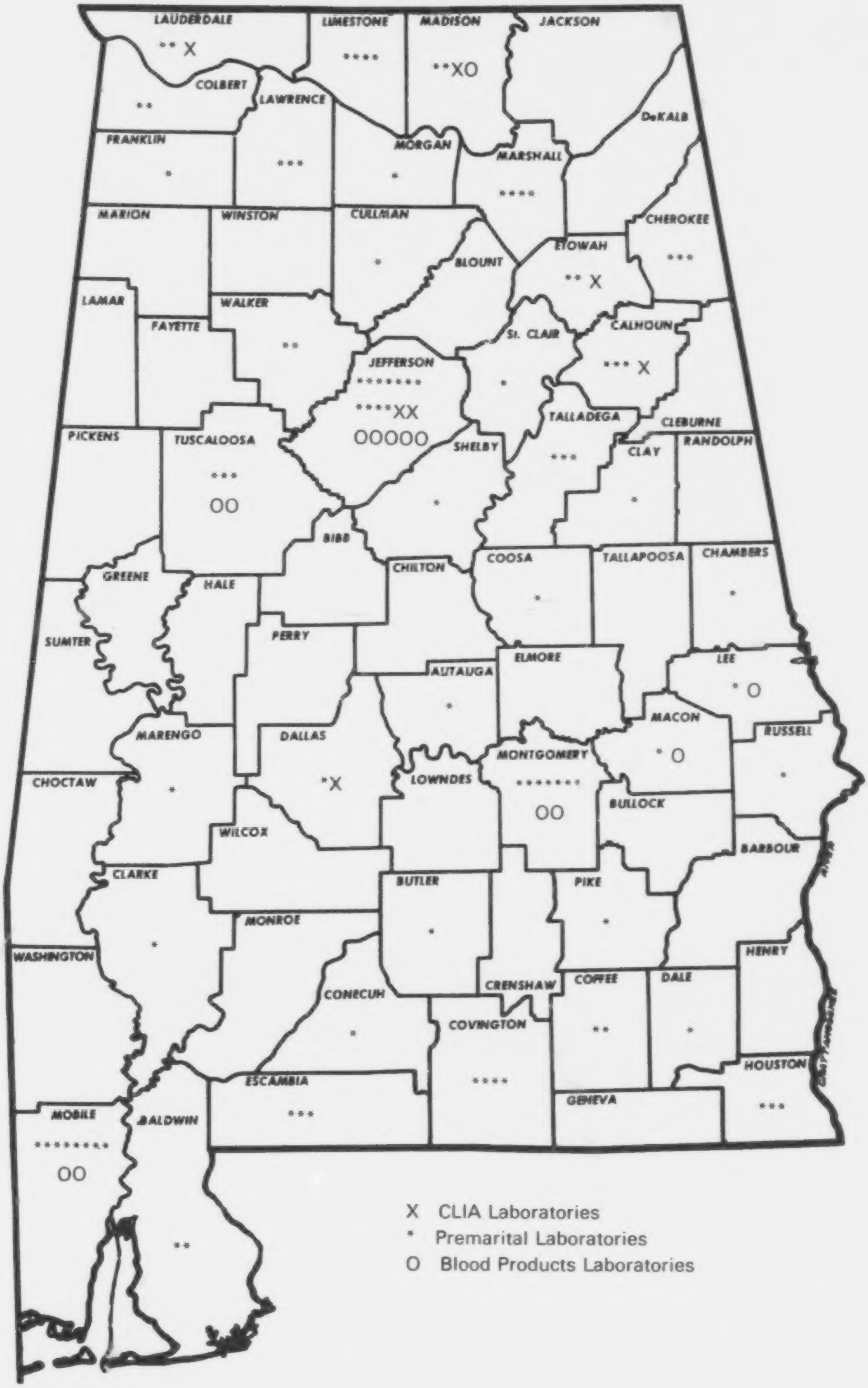
Chart 4-2 shows the distribution of laboratories certified in syphilis serology.

The Alabama Board of Medical Technician Examiners was abolished and new criteria were established for those desiring to become approved for performing premarital blood testing. The new regulations are as follows:

1. A completed application form must be returned to the Clinical Laboratory Administration. This application will be reviewed by the Bureau of Licensure and Certification.
2. The applying person must fulfill the requirements of a technologist as stated in the "Alabama State Board of Health; Rules, Regulations and Standards for Independent Clinical Laboratories; Adopted October 15, 1975," page 9, section C, paragraph 303.1.
3. The Bureau of Licensure and Certification notifies the Clinical Laboratory Administration of the person's eligibility as a technologist.
4. A set of check specimens consisting of 10 serum samples is mailed to the applying technologist and after these results are received a second set is mailed.
5. If results on these samples show an average deviation of 10 percent or less, approval will be granted. Probate judges will be notified and a supply of premarital certificates will be furnished.



## CHART 4-2
## SYPHILIS SEROLOGY CERTIFIED LABORATORIES
## 1984


LAUDERDALE ** X
LIMESTONE ****
MADISON **XO
JACKSON
COLBERT **
LAWRENCE ***
DeKALB
FRANKLIN *
MORGAN *
MARSHALL ****
MARION
WINSTON
CULLMAN *
CHEROKEE ***
BLOUNT
ETOWAH ** X
LAMAR
WALKER **
FAYETTE
ST. CLAIR *
CALHOUN *** X
JEFFERSON ******* ****XX OOOOO
TALLADEGA ***
CLEBURNE
PICKENS
TUSCALOOSA *** OO
SHELBY *
CLAY *
RANDOLPH
BIBB
CHILTON
COOSA *
TALLAPOOSA
CHAMBERS *
GREENE
HALE
SUMTER
PERRY
AUTAUGA *
ELMORE
LEE * O
MACON * O
MARENGO *
DALLAS *X
LOWNDES
MONTGOMERY ******* OO
RUSSELL *
CHOCTAW
BULLOCK
WILCOX
BARBOUR
CLARKE *
BUTLER *
PIKE *
MONROE
WASHINGTON
HENRY
CRENSHAW
COFFEE **
DALE *
CONECUH *
COVINGTON ****
HOUSTON ***
ESCAMBIA ***
GENEVA
MOBILE ******** OO
BALDWIN **
X CLIA Laboratories
* Premarital Laboratories
O Blood Products Laboratories

## Special Division

**Bacterial Agglutination Tests**—A tube agglutination test for brucella and/or tularemia was performed on 49 specimens. Four specimens were positive for *Brucella abortus* and six specimens were positive for *Francisella (Pasteurella) tularensis*. In addition five specimens were forwarded to Auburn for *Brucella canis* testing.

Bacterial agglutination tests were also performed on four specimens from CDC as part of the proficiency testing (general immunology) program. Results obtained were 100 percent in agreement and reproducibility.

**Complement Fixation Tests (Viral)**—Paired serums for antibodies to respiratory, neurotropic, enteric and exanthem viruses; rickettsia and chlamydia totaled 969. Results interpreted as compatible with recent infection (specimens showing a four-fold or greater rise in titer of the convalescent specimen over the acute specimen) were:

| | |
|---|---|
| Influenza A | 27 |
| Influenza B | 34 |
| Adenovirus Group | 12 |
| *Mycoplasma pneumonia* | 14 |
| *Chlamydia* group | 11 |
| Parainfluenza 1 | 1 |
| Parainfluenza 2 | 1 |
| Parainfluenza 3 | 3 |
| Respiratory Syncytial | 2 |
| Herpes Simplex | 14 |
| St. Louis Encephalitis | 1 |
| Mumps Viral | 2 |
| Murine Typhus | 2 |
| Spotted Fever Group | 9 |
| Q Fever | 1 |
| Varicella | 1 |
| Cytomegalovirus | 8 |
| Rubeola Virus | 2 |
| TOTAL | 145 |

Negative results were obtained on 146 paired serums, and 20 pairs were unsatisfactory.

Results suggesting involvement at some undetermined time but not necessarily in the current illness were:

| | |
|---|---|
| Influenza A | 296 |
| Influenza B | 206 |
| Adenovirus group | 167 |
| *Mycoplasma pneumoniae* | 404 |
| Chlamydia Group | 30 |
| Respiratory Syncytial | 22 |
| Parainfluenza Type 1 | 6 |
| Parainfluenza Type 2 | 8 |
| Parainfluenza Type 3 | 22 |
| Mumps viral | 118 |
| Lymphocytic Choriomeningitis | 2 |
| Herpes Simplex | 146 |
| Murine Typhus | 3 |
| Spotted Fever Group | 3 |
| Q Fever | 1 |
| Polio Type I | 3 |
| Polio Type II | 1 |
| Polio Type III | 1 |
| Rubeola | 35 |
| Varicella | 26 |
| Cytomegalovirus | 116 |
| TOTAL | 1,616 |

Specimens received for viral and rickettsial serology were tested against batteries of antigens. Examinations totaled 10,504.

One hundred sixty-two single specimens were tested upon special request. However, since no interpretation of the results of a single specimen can be made, titers only were reported.

**Hemagglutination Tests**—The hemagglutination inhibition (HI) test for rubella antibodies was performed on 224 sera for diagnostic purposes. Paired sera from two patients showed a four-fold or greater rise in titer.

In cooperation with the Environmental and Facility Standards Administration, the Special Serology section performed hemagglutination inhibition testing on 712 bird sera as part of an encephalitis surveillance program. Specimens were tested for antibody against St. Louis encephalitis, Eastern equine encephalitis and Highlands J encephalitis antigens.

The number of specimens with a titer of 20 or above were:

| | |
|---|---|
| St. Louis encephalitis | 12 |
| Eastern equine encephalitis | 1 |
| Highlands J encephalitis | 1 |

**Hepatitis Serology**—As of April 2, 1984, the laboratory began accepting serum specimens for hepatitis A and B testing by the enzyme immunoassay (EIA) method. This service is offered in support of the Bureau of Epidemiology and Consultation and is available only to county health departments. Testing is provided for outbreaks, suspected cases and contacts of suspected cases of hepatitis, and is not offered for routine screening. Prior arrangements must be made with the Clinical Laboratory Administration or the Bureau of Epidemiology and Consultation before submitting the initial specimen from a patient.

Two hundred forty-five specimens were received for hepatitis serology. Thirty-four hepatitis A requests were received; 11 of these were reactive for hepatitis A IgM antibody. The following results were obtained on the 223 requests for hepatitis B testing:

| | |
|---|---|
| HBsAg + anti-HBc (acute) | 32 |
| anti-HBc only (window) | 19 |
| anti-HBc + anti-HBs (immunity) | 30 |

| | |
|---|---|
| HBsAg only (possible early acute) | 6 |
| anti-HBs only (vaccine response) | 3 |

**Complement Fixation Tests (Fungal)**—A complement fixation test for histoplasmosis (both mycelial and yeast phases), blastomycosis and coccidioidomycosis was performed on 1,185 specimens. Those showing a titer of 1:8 or above were:

*Histoplasma capsulatum*

| Mycelial | Yeast | Both |
|---|---|---|
| 0 | 256 | 23 |

*Blastomyces dermatitidis*
15

*Coccidioides immitis*
0

*B. dermatitidis & H. capsulatum*
34

*C. immitis & H. capsulatum*
0

*B. dermatitidis & C. immitis & H. capsulatum*
5

Unsatisfactory
54

**Microimmunodiffusion Tests**—During fiscal year 1984 microimmunodiffusion testing was performed on 1,185 sera for histoplasmosis and blastomycosis. From these the following bands were produced:

**Histoplasmosis**

| | |
|---|---|
| M Band | 145 |
| H Band | 0 |
| M & H Band | 14 |

**Blastomycosis**

| | |
|---|---|
| A Band | 10 |

Aspergillosis testing was performed on 307 sera by this same method. Twenty-one specimens gave a positive reaction to one or more of the species listed below:

| **Aspergillus Species** | **Positives*** |
|---|---|
| *Aspergillus flavus* | 6 |
| *Aspergillus niger* | 10 |
| *Aspergillus fumigatus* | 15 |

*Six specimens were positive to more than one species.

## Metabolic Division

**PKU**—A total of 98,188 blood specimens and 4 urine specimens was tested for phenylalanine levels. Results are summarized as follows.

| | |
|---|---|
| Newborn (White) | 31,011 |
| Newborn (Black) | 17,412 |
| Four-week (White) | 32,422 |
| Four-week (Black) | 16,660 |
| Older Children | 34 |
| Maternal | 12 |
| Center for Developmental and Learning Disorders | 0 |
| Miscellaneous | 16 |
| REPEATS: | |
| Inadequate bloods | 5 |
| Upper limits of normal | 228 |
| Feeding less than 24 hours | 66 |
| Slight transient elevations | 72 |
| Dietary follow-up | 254 |
| TOTAL | 98,192 |

Three PKU positives were detected during fiscal year 1984. One specimen was found to have persistent hyperphenylalaninemia in the range of 12-20 milligram percent. The cumulative total of positives since the program began in 1964 is listed below:

| | |
|---|---|
| Newborn (White) | 47 |
| Newborn (Black) | 2 |
| Four-week (White) First Test | 2* |
| Older Children | 5 |
| Partlow (New Admissions) | 3 |
| TOTAL | 59 |

*Six week old infants tested for first time by the Clinical Laboratory Administration included in this figure.

**PKU Chemistry**—Chemical determinations were made as follows:

| | |
|---|---|
| Nitroprusside test for cystinuria and homocystinuria (Urine specimens) | 4 |
| Chromatography (Sulfanilic acid stained for histidine and urinary metabolites-urine specimens) | 4 |
| Chromatography (Isatin and Ehrlich's stained for proline and hydroxyproline disorders-blood and urine specimens) | 258 |
| Chromatography (Ninhydrin stained for amino-acid disorders-blood and urine specimens) | 129 |

A total of 395 tests for amino acids was performed on 129 blood and urine specimens submitted by physicians from throughout the state.

**Neonatal Hypothyroid Screening**—The results of the statewide neonatal hypothyroid screening program for fiscal year 1984 are shown in Table 4-3 and Table 4-4.

### TABLE 4-3
### NEONATAL HYPOTHYROID SCREENING
### FISCAL YEAR 1984

| $T_4$ (Thyroxine Level) Specimens | Number Tested | Examinations | Cases Detected |
|---|---|---|---|
| Newborn (White) | 31,011 | 35,828 | 8 |
| Newborn (Black) | 17,412 | 20,111 | 0 |
| Four Week (White) | 32,422 | 37,461 | 1 |
| Four Week (Black) | 16,660 | 19,020 | 0 |
| Low $T_4$ Repeats | 246 | 246 | — |
| TSH (Thyroid Stimulating Hormone) | *12,313 | 24,626 | — |
| TOTAL | 97,751 | $T_4$ Exams<br>112,666 | 9 |
| TOTAL EXAMS | | 137,292 | |

*Not included in total number tested.

### TABLE 4-4
### NEWBORNS TESTED SINCE PROGRAM BEGAN
### 1978-1984

| Year | Newborns | Cases Detected | Incidence |
|---|---|---|---|
| 1978 | 38,695 | 4 | 1/9,673 |
| 1979 | 50,834 | 10 | 1/5,083 |
| 1980 | 51,122 | 10* | 1/5,112 |
| 1981‡ | 50,312 | 13 | 1/3,870 |
| 1982 | 49,775 | 11 | 1/4,525 |
| 1983 | 49,386 | 7 | 1/7,054 |
| 1984 | 48,423 | 9 | 1/5,380 |
| TOTAL | 338,536 | 64 | 1/5,290 |

*Indicates one infant with transient hypothyroidism.
‡Statistics began on a fiscal year basis.

**Abnormal Hemoglobin Screening (Including Sickle Cell Anemia)**—A total number of 40,651 specimens was tested by electrophoresis for abnormal hemoglobins. The results were:

| | |
|---|---|
| AA | 35,352 |
| AS | 3,202 |
| AC | 914 |
| SS | 49 |
| SF | 52 |
| SC | 48 |
| AF | 534 |
| A high F | 206 |
| CC | 13 |
| AG Philadelphia | 5 |
| AE | 36 |
| Non S | 31 |
| Non C | 4 |
| EE | 4 |
| AO Arab | 3 |
| AN Baltimore | 3 |
| AEF | 1 |
| EF | 1 |
| A + fast mover | 9 |
| AS Baltimore | 1 |
| CF | 4 |
| AD Los Angeles | 1 |
| ASG Philadephia | 1 |

**Thalassemias:**

| | |
|---|---|
| FA | 16 |
| FS | 2 |
| A + high $A_2$ | 13 |
| $AFA_2$ | 4 |
| CA | 2 |
| FAS | 2 |
| SA | 5 |
| SAF | 6 |
| FAC | 1 |
| FF | 1 |
| Unsatisfactory | 99 |
| Repeats | 29 |
| TOTAL | 40,654 |

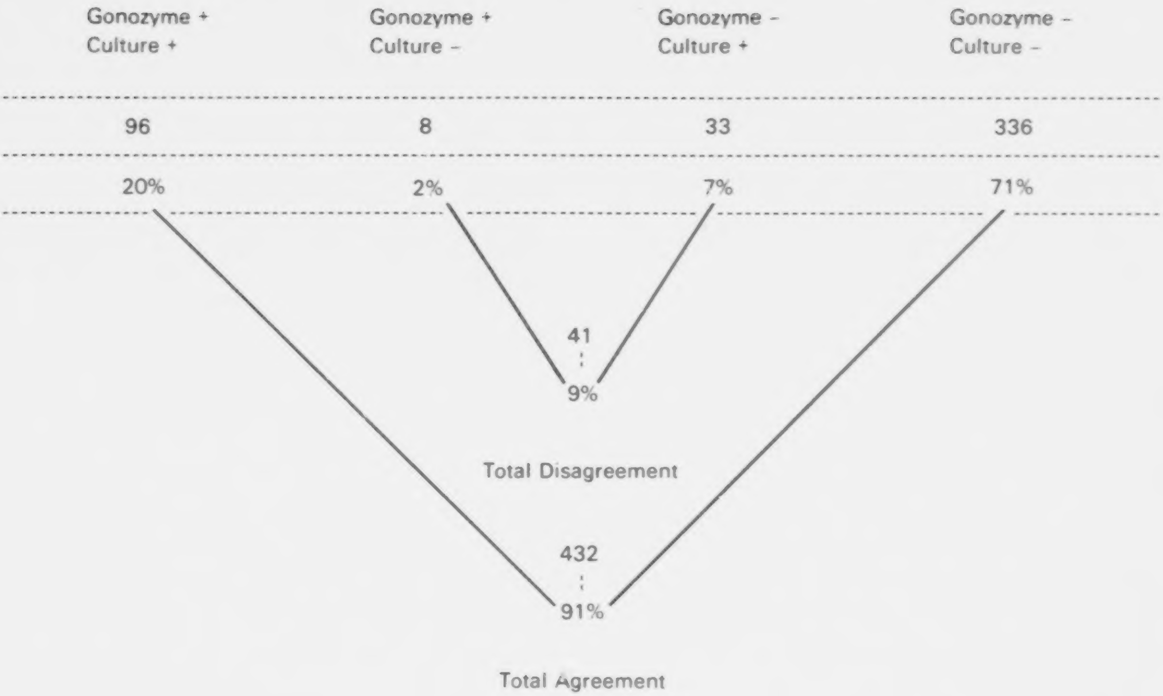
Electrophoresis at an acid pH was performed on 5,200 specimens to distinguish other abnormal hemoglobins having the same mobilities as S and C at an alkaline pH.

Polypeptide chain involvement was determined by globin chain electrophoresis on 46 specimens.

In April 1984, the Bureau of Serology began accepting specimens for hepatitis A and B testing. This service was offered only to county health departments for suspected cases, outbreaks or contacts, and was not offered for routine screening. An enzyme linked immunosorbent assay (ELISA) was utilized for testing.

The Bureau of Serology participated in a study by the Bureau of Epidemiology and Consultation for the detection of rotavirus. This study continued into the 1985 fiscal year.

Approximately 500 specimens on females from Montgomery and Jefferson counties were tested by the Abbott Gonozyme EIA procedure and by the standard culture method. Results are summarized as follows:



| Gonozyme +<br>Culture + | Gonozyme +<br>Culture – | Gonozyme –<br>Culture + | Gonozyme –<br>Culture – |
|---|---|---|---|
| 96 | 8 | 33 | 336 |
| 20% | 2% | 7% | 71% |

41 : 9%

Total Disagreement

432 : 91%

Total Agreement

Specificity = 97%
Sensitivity = 74%

The Bureau of Serology continued to serve as a reference laboratory for CDC and the states of Florida, Tennessee, Kentucky, Missouri, North Carolina and Oklahoma for the Rapid Plasma Reagin (18mm circle card test) (RPR), the VDRL slide agglutination test, the FTA-ABS test, and the microhemagglutination assay for *Treponema pallidum* (MHA-TP). This bureau also served as a reference laboratory for CDC for hemoglobinopathies.

The training coordinator attended a meeting of the Southeastern Laboratory Improvement Section (SLIPS) at the CDC. Microbiologists attended courses at the CDC in nontreponemal tests for syphilis and radio-immunoassay (RIA). A course in health and medical laboratory management was sponsored by the Clinical Laboratory Administration at the Jefferson County Department of Health.

Personnel consisted of one microbiologist IV, five microbiologist III's, seven microbiologist II's, three microbiologist I's, one laboratory technician II and one laboratory technician I.

## Indirect Fluorescent Antibody (IFA) Division

**Fluorescent Microscopy**—The Fluorescent Treponemal Antibody-Absorption (FTA-ABS) test for syphilis was performed on all specimens found to be nonreactive with the Microhemmagglutination assay for antibodies to *Treponema pallidum*. There were 1,098 specimens examined using the FTA-ABS test with the following results:

| | |
|---|---|
| Reactive | 42 |
| Nonreactive | 1,042 |
| Borderline | 14 |
| Unsatisfactory | 3* |

*Not included in the total specimen number.

The indirect immunofluorescence test was employed for the detection of antibodies to *Toxoplasma gondii*. Of the 426 specimens tested, titers of 1:16 or greater were obtained on 116 with 35 of these titering 1:256 or greater. Nine serum specimens were submitted to the Centers for Disease Control to be tested for IgM antibodies to *T. gondii*.

The indirect immunofluorescence test was also used to detect antibodies to *Legionella pneumophila*. Of the 351 specimens tested, eight specimens titered 1:256 or greater providing presumptive evidence of infection at an undetermined time. Paired sera from two patients demonstrated a four-fold or greater rise in titer, showing evidence of a recent infection.

# BUREAU OF TUBERCULOSIS AND MYCOLOGY

## Tuberculosis Division

**Mycobacteriology**—A total of 23,326 specimens for tuberculosis examination was received from October 1, 1983, to September 30, 1984. The total number of examinations performed on these specimens was 128,622. A breakdown of examinations and results follows:

| | |
|---|---|
| TOTAL SPECIMENS | 23,326 |
| Microscopic smears | 21,815 |
| Positive | 726 |
| Negative | 21,125 |
| Cultures for identification | 808 |
| Unsatisfactory specimens | 667 |

| | |
|---|---|
| TOTAL CULTURES | 22,659 |
| Positive | 1,655 |
| Negative | 19,220 |
| Unsatisfactory contaminated | 1,004 |
| Mycobacteria not *M. tuberculosis** | 1,284 |
| *Nocardia sps.* | 33 |

*Only 623 of these cultures were suspected pathogens and were identified as follows:

| | |
|---|---|
| *M. kansasii* | 21 |
| *M. marinum* | 7 |
| *M. scrofulaceum* | 2 |
| *M. avium—M. intracellulare* complex | 495 |
| *M. chelonae* subspecies *abscessus* | 55 |
| *M. fortuitum* | 31 |
| *M. avium-intracellulare-scrofulaceum* complex | 11 |
| *M. xenopi* | 1 |

Special tests performed for identification were:

| | |
|---|---|
| Subculture | 1,427 |
| Primary biochemicals (identification of *M. tuberculosis)* | 814 |
| Secondary biochemicals (identification of all other mycobacteria) | 613 |
| Serotyping | 267 |
| Drug susceptibility tests | 1,168 |
| Direct tests | 259 |
| Indirect tests | 909 |

## Mycology Division

Of the 3,170 specimens received by the Mycology section, 704 were cultures for identification. The following pathogenic or possible pathogenic fungi were identified:

| | |
|---|---|
| *Blastomyces dermatitidis* | 10 |
| *Cryptococcus neoformans* | 16 |
| *Cryptococcus albidus* | 1 |
| *Cryptococcus laurentii* | 2 |
| *Cryptococcus luteolus* | 2 |
| *Cryptococcus sp.* | 1 |
| *Candida albicans* | 68 |
| *Candida guillermondii* | 11 |
| *Candida krusei* | 3 |
| *Candida norvegensis* | 1 |
| *Candida parapsilosis* | 24 |
| *Candida pseudotropicalis* | 7 |
| *Candida stellatoidea* | 1 |
| *Candida tropicalis* | 27 |
| *Histoplasma capsulatum* | 18 |
| *Sporothrix schenckii* | 5 |
| *Nocardia asteroides* | 2 |
| *Nocardia caviae* | 1 |
| *Pseudallescheria boydii* | 10 |
| *Exophiala jeanselmei* | 8 |
| *Exophiala werneckii* | 3 |
| *Fonsecaea pedrosoi* | 1 |
| *Torulopsis inconspicua* | 1 |
| *Saccharomyces cerevisiae* | 3 |
| *Torulopsis candida* | 1 |
| *Torulopsis glabrata* | 25 |
| *Torulopsis sp.* | 2 |
| *Wangiella dermatitidis* | 1 |
| *Trichosporan beigelii* | 8 |
| *Geotrichum candidum* | 3 |
| *Geotrichum penicillatum* | 2 |
| *Aspergillus fumigatus* | 29 |
| *Aspergillus flavus* | 28 |
| *Aspergillus glaucus* | 3 |
| *Aspergillus nidulans* | 18 |
| *Aspergillus niger* | 15 |
| *Aspergillus terreus* | 13 |
| *Aspergillus sp.* | 9 |
| *Microsporum audounii* | 1 |
| *Microsporum canis* | 12 |
| *Microsporum gypseum* | 3 |
| *Epidermophyton floccosum* | 2 |
| *Trichophyton mentagrophytes* | 6 |
| *Trichophyton georgiae* | 1 |
| *Trichophyton rubrum* | 39 |
| *Trichophyton tonsurans* | 19 |
| *Trichophyton terrestre* | 1 |
| *Rhizopus sp.* | 2 |
| *Mucor* sp | 8 |

Animals were inoculated with 27 soil samples, using the indirect mouse pathogenicity procedure, for the isolation of *Histoplasma capsulatum.* Six of these samples were reported positive for *Histoplasma capsulatum.* The Tuberculosis Division participated with the CDC in a study of drug resistance among never treated and previously treated tuberculosis patients. This study began October 1, 1982, and is still in progress. The Tuberculosis Division also cooperated with the CDC in a drug study evaluating short term chemotherapy for tuberculosis patients. A collaborative study with the CDC to gather information on the isolation of nontuberculosis mycobacteria was continued. The data collected in this survey is helpful in assessing the incidence and geographic distribution of nontuberculosus mycobacteria in the United States.

The TB and Mycology divisions continued to provide vital ancillary services such as:

1. Serving as a reference laboratory for the CDC and the New York City Public Health Laboratory.
2. Training medical technology students in diagnostic methods for TB and Mycology.
3. Conducting tours and providing orientation seminars to public health nurses and other interested personnel.
4. Distributing stock reference cultures to hospitals, private laboratories, schools and universities.

In an effort to constantly upgrade services and maintain the high standards and reputation of the laboratory, personnel attended courses, workshops and seminars whenever possible. This past year one microbiologist attended a two week course on mycobacteria at the CDC, one microbiologist received bench training in mycology at the CDC, and one microbiologist attended a workshop on mycology presented by Mayo Clinic.

The personnel consisted of one microbiologist IV, four microbiologist III's, five microbiologist II's, one laboratory technician III and two laboratory technician II's.

## BRANCH LABORATORIES

### Birmingham Branch Laboratory

The Birmingham Branch Laboratory performed 311,864 examinations on 251,953 specimens in fiscal year 1984. These included the following:

1. Examined 78,894 VDRL slide tests for syphilis of which 3.6 percent were positive.
2. Examined 142,940 *Neisseria gonorrhoeae* cultures of which 6.6 percent were positive.
3. Examined 7,514 dairy samples of which 19.6 percent were positive.
4. Examined 23,698 water samples of which 12.2 percent were positive for coliform bacteria.
5. Examined 839 water samples for fluoride determinations of which 9.6 percent were positive.
6. Examined 924 animal brain specimens for rabies testing of which 14 (1.5 percent) were positive. The 14 positive specimens were all bats.
7. Examined 33 swabs or gargle specimens for influenza isolation.

The laboratory evaluation officer and the Sanitary Bacteriology Section prepared and submitted split milk proficiency samples to all state milk laboratories in accordance with the National Conference of Interstate Milk Shipments and the Food and Drug Administration. The results were compiled and statistically analyzed in a written report to the proper federal and state agencies. The report showed all milk analysts maintained compliance with this part of the certification program.

The evaluation officer conducted 10 on-site laboratory evaluations in accordance with the Food and Drug Administration and the Environmental Protection Agency's laboratory certification programs. These laboratories were certified where compliance with established procedures and regulations were observed. Five analysts were certified in one milk laboratory while 24 analysts were certified in nine water laboratories. One water testing laboratory did not meet certification standards and was not approved. Certification was awarded to the analysts who complied with the following major areas of responsibility:

1. Accuracy of technique and procedure.
2. Interpreting and reporting results.
3. Quality control procedures and records.

The evaluation officer also assisted in the training of a second evaluation officer through these on-site evaluations.

The Sanitary Bacteriology Section provided in-house training to four municipal/industry water analysts. This section also continued to provide certain annual quality control tests for all certified milk and water laboratories and performed evaluation testing for new procedures.

The Birmingham Branch Laboratory hosted the FDA course, *"Bacillus stearothermophilus* Inhibitor Disc Assay." The Sanitary Bacteriology Section assisted the FDA Training Branch in the practical session. There were 26 participants representing 17 milk plants across the state.

The laboratory also hosted the Centers for Disease Control Laboratory Management Workshop. This workshop was attended by 16 managers from area hospitals.

In addition a three-stage workshop was conducted in the laboratory dealing with the Directigen Strep Test, the Directigen Meningitis Test and the Rubascan Test. There were eight participants.

The laboratory evaluation officer participated in the Region IV FDA State Rating and Evaluation Officer's Workshop, the Alabama Water and Pollution Control Association regional meetings, the Alabama Dairy Conference and the Institutional Sanitary Food Service Meeting.

Personnel for the year consisted on one microbiologist V, one microbiologist IV, two microbiologist III's, three microbiologist II's, three microbiologist I's, two laboratory technician III's, two laboratory technician II's, three laboratory technician I's, one clerk typist III and two clerk typist II's.

## Decatur Branch Laboratory

The Decatur Branch Laboratory performed 98,323 examinations on 69,146 specimens during fiscal year 1984. These specimens included the following:

1. Examined 22,455 blood specimens by the VDRL slide tests for syphilis of which 3.3 percent were positive, a decrease of 6.9 percent from the previous year.
2. Tested 5,064 milk and dairy product samples of which 14.8 percent were positive.
3. Tested 15,154 public and private water samples using the Millipore Filter Technique, of which 9.9 percent were found positive.
4. Received and examined 25,836 *Neisseria gonorrhoeae* cultures, and 6.3 percent of this total were positive.
5. Examined 581 animal brains for rabies, and 18 positives were detected (3.1 percent).

Rabies decreased by 59 specimens over the previous year, but the number of positives increased by one. Animals producing a positive FA test for Negri bodies included 11 skunks and seven bats.

The Decatur Branch Laboratory continued to participate in proficiency testing programs for milk analysis, syphilis serology, water supply study for total coliform analysis, *Neisseria gonorrhoeae* and rabies.

Laboratory personnel conducted tours of the laboratory for interested groups, lectured to microbiology classes from Calhoun Junior College, and nurses' in-service meetings of the Tri-County District Health Service. In addition nursing students from the University of Alabama at Huntsville observed testing and procedures one day per week for an eight week period.

The laboratory staff consisted of one microbiologist IV, two microbiologist III's, two microbiologist II's, two laboratory technician II's and one clerk typist II.

## Dothan Branch Laboratory

The Dothan Branch Laboratory performed 24,607 examinations on 15,149 specimens in the fiscal year 1984. These specimens included the following:

1. Examined 1,256 milk and dairy products of which 25 percent were positive.
2. Examined 6,963 public and private waters of which 7.4 percent were positive.
3. Examined 6,906 *Neisseria gonorrhoeae* cultures of which 9.3 percent were positive.
4. Two hundred eighty-two animal heads were shipped to the Central Laboratory for rabies testing. Of these 24, or 8.5 percent, were positive for rabies.

In other activities the laboratory received proficiency testing samples for *Neisseria gonorrhaeae,* waters and dairy products. A representative from the laboratory participated in a level I laboratory management training course. The laboratory worked with representatives from the EPA and the Bureau of Radiological Health during a mock disaster of the Farley Nuclear Plant. The laboratory demonstrated water procedures to those interested in establishing water laboratories.

A urine culture pilot program was established with the Houston County Health Department and the Clinical Laboratory Administration.

Plans are now under way for a new laboratory to be built in 1985.

The seven counties in the southern corner of the state continue to be the service area of the laboratory.

Personnel consisted of one microbiologist III, one laboratory technician II and one laboratory technician I.

## Mobile Branch Laboratory

The Mobile Branch Laboratory performed 130,481 examinations on 105,069 specimens during this fiscal year. The following examinations were performed:

1. A total of 42,044 VDRL slide tests for syphilis, showing a 14 percent decrease from last year. Some 36,402 of these were for premarital tests.
2. Some 2,192 dairy samples were tested. This was a 16 percent increase from last year. A total of 6,477 examinations was performed on these samples.
3. Potable water samples totaling 10,573 were received which was a 17 percent reduction from last year. A total of 22 surface water samples was tested by the MPN method.
4. One hundred sixty-eight shellfish samples were tested for *Escherichia coli* by the multiple tube most probable number method. This represents a reduction of 45 percent from the previous year. One hundred ninety bay water samples were tested. This was a 54 percent reduction from 1982-1983.
5. Processed 49,471 *Neisseria gonorrhoeae* cultures. Of this number 7 percent were positive. A total of 61 penicillinase-producing GC cultures was found.
6. Three hundred twenty animal brains were examined for rabies. This is a 32 percent increase from last year. A total of seven positives, all bats, was found compared to five for last year.

In other activities, the laboratory received proficiency testing specimens for *Neisseria gonorrhoeae,* syphilis serology, milk testing, potable water and rabies.

The laboratory was recertified to do Medicaid testing for syphilis serology and *Neisseria gonorrhoeae.*

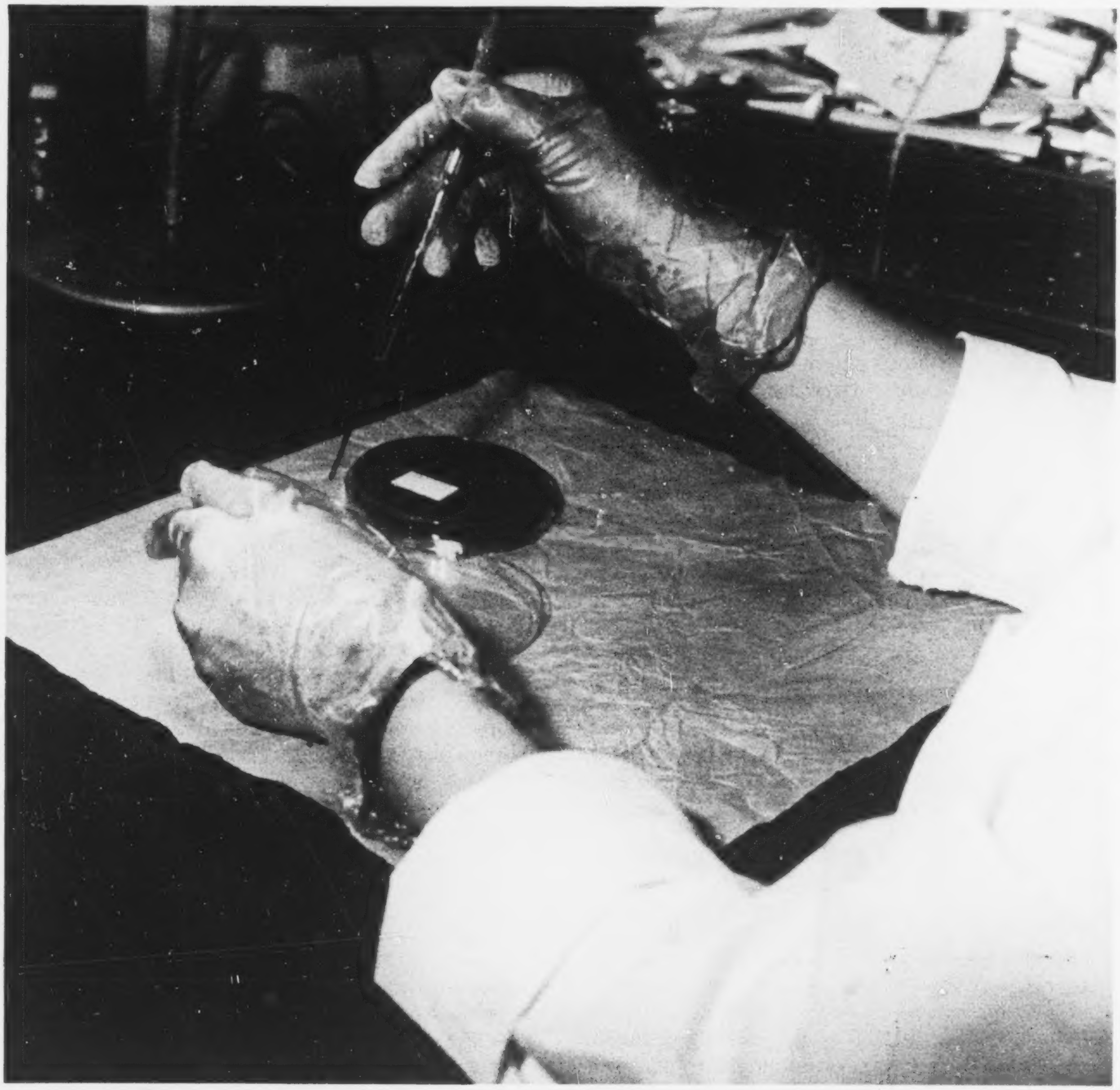
One microbiologist attended the "Interstate Shellfish Sanitation Conference" held in Orlando, Florida. One microbiologist attended Level I of the Alabama Department of Public Health Management Development Program in Montgomery.

Final preparations were made for construction of a new building for the Mobile Branch Laboratory. This building is to be located on Forest Hill Drive. At the present time, the laboratory is located on the University of South Alabama Brookley Campus.

This laboratory is participating in a nationwide comparative study sponsored by the Interstate Shellfish Shippers Conference in conjunction with the Food and Drug Administration. The purpose of this study is to evaluate a rapid test procedure for *Escherichia coli* determination. This study produced a large increase in both workload and number of examinations.

A rapid 24 hour *E. coli* test is being evaluated. This procedure involves adding a fluorescent substrate (MUG) to sample tubes. Tubes containing *E. coli* will fluoresce under ultraviolet light after 24 hours of incubation.

Personnel consisted of one microbiologist V, two microbiologist III's, four microbiologist II's, one microbiologist I, three laboratory technician I's and one clerk typist II.



## TABLE 4-5
## COMBINED CLINICAL LABORATORIES
## FISCAL YEAR 1984

| SEROLOGY-METABOLIC | | SPECIMENS | POSITIVE | NEGATIVE | UNSAT | EXAMS |
|---|---|---|---|---|---|---|
| Hepatitis | | 705 | | | | 919 |
| STS | VDRL-Routine WR2,412 | 156,523 | 7,515 | 144,710 | 1,903 | 167,457 |
| | VDRL-Premarital WR 222 | 31,713 | 222 | 31,118 | 151 | 32,210 |
| | VDRL-Spinal Fluid | 1,051 | 3 | 1,034 | 14 | 1,054 |
| | MHA-TP | 2,658 | | | | 2,658 |
| Bacterial Agglutination | | 47 | 10 | 59 | | 71 |
| Agar Gel | | 1,266 | 189 | 1,074 | 3 | 2,677 |
| CF | Viral | 2,230 | | | | 10,504 |
| | Fungal | 1,212 | | | | 4,848 |
| HI | Rubella-Influenza-SLE-Dengue | 939 | | | | 2,386 |
| IFA | FTA-ABS | 1,095 | 42 | 1,042 | 3 | 1,118 |
| | Toxoplasmosis | 426 | 116 | 310 | | 432 |
| | Legionnaires | 351 | | | | 354 |
| | Rickettsia | | | | | |
| | Herpes | | | | | |
| METABOLIC | Hemaglobinopathies | 40,651 | | | 102 | 46,892 |
| | PKU-Guthrie | 98,192 | 2 | | | 98,192 |
| | PKU-Chromatography | 129 | | | | 395 |
| | Hypothyroid | 97,777 | 10 | | 9,329 | 137,304 |
| **MICROBIOLOGY** | | | | | | |
| Enteric | | 2,970 | 893 | 2,054 | 23 | 3,611 |
| Urine Culture | | | | | | |
| Sanitary-Dairy | | 20,574 | 3,958 | 16,410 | 188 | 61,905 |
| Potable Water | | 73,268 | 6,047 | 63,698 | 3,474 | 141,145 |
| Fluorine | | 839 | 6 | 830 | 3 | 836 |
| Bay Water | | 190 | 44 | 137 | 9 | 380 |
| Shellfish | | 168 | 32 | 136 | | 1,142 |
| Special Bacteriology | | 767 | 622 | 43 | 78 | 19,833 |
| Staphylococcus | | 34 | 23 | 10 | 1 | 31 |
| Bordetella pertussis Culture | | 18 | 1 | 16 | 1 | 55 |
| Bordetella pertussis FA | | 26 | 8 | 18 | | 298 |
| Brucella | | 2 | | 2 | | 98 |
| Diphtheria | | 9 | | 8 | 1 | 24 |
| Legionella | | 158 | 20 | 120 | 4 | 2,272 |
| Food Bacteriology | | 169 | 13 | 155 | 1 | 717 |
| GC Culture-PPNG Screening | | 289,632 | 21,837 | 261,788 | 6,498 | 335,369 |
| Parasitology | | 15,784 | 1,955 | 12,891 | 938 | 14,721 |
| Streptococcus | | 453 | 16 | 437 | | 498 |
| Filth Analysis | | 4 | 4 | | | 4 |
| Rabies-FA | | 2,931 | 98 | 2,768 | 65 | 3,268 |
| **TB-MYCOLOGY** | | | | | | |
| TB | Microscopic Smears | 22,518 | 726 | 21,125 | 667 | 21,851 |
| | Referred Cultures | 808 | | | | |
| | Total Cultures | | 1,655 | 19,220 | 1,004 | 133,411 |
| Mycology | | 3,170 | | | | 29,696 |
| **MCH-FP** | | | | | | |
| Rh Factor | | 12,438 | 8,962 | 3,365 | 111 | 20,186 |
| VDRL WR 181 | | 25,596 | 260 | 24,852 | 303 | 25,734 |
| Rubella | | 12,197 | 10,460 | 1,668 | 86 | 13,263 |
| **CHECK SPECIMENS** | | 1,015 | | | | 3,735 |
| **TOTALS** | | 922,703 | 68,564 | 611,098 | 24,960 | 1,343,554 |

## TABLE 4-6
## MONTGOMERY CLINICAL LABORATORY
## FISCAL YEAR 1984

| **SEROLOGY-METABOLIC** | | SPECIMENS | POSITIVE | NEGATIVE | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|
| Hepatitis | | | | | | |
| **STS** | VDRL-Routine **WR** 841 | 62,305 | 1,897 | 59,121 | 446 | 65,130 |
| | VDRL-Premarital **WR** 84 | 13,630 | 69 | 13,458 | 19 | 13,764 |
| | VDRL-Spinal Fluid | | | | | |
| | MHA-TP | | | | | |
| Bacterial Agglutination | | | | | | |
| Agar Gel | | | | | | |
| **CF** | Viral | | | | | |
| | Fungal | | | | | |
| **HI** | Rubella-Influenza-SLE-Dengue | | | | | |
| **IFA** | FTA-ABS | | | | | |
| | Toxoplasmosis | | | | | |
| | Legionnaires | | | | | |
| | Rickettsia | | | | | |
| | Herpes | | | | | |
| **METABOLIC** | Hemaglobinopathies | | | | | |
| | PKU-Guthrie | | | | | |
| | PKU-Chromatography | | | | | |
| | Hypothyroid | | | | | |
| **MICROBIOLOGY** | | | | | | |
| Enteric | | | | | | |
| Urine Culture | | | | | | |
| Sanitary-Dairy | | 7,514 | 1,475 | 5,911 | 128 | 21,543 |
| Potable Water | | 23,698 | 2,907 | 19,625 | 1,166 | 45,636 |
| Fluorine | | 839 | 6 | 830 | 3 | 836 |
| Bay Water | | | | | | |
| Shellfish | | | | | | |
| Special Bacteriology | | | | | | |
| Staphylococcus | | | | | | |
| Bordetella pertussis Culture | | | | | | |
| Bordetella pertussis FA | | | | | | |
| Brucella | | | | | | |
| Diphtheria | | | | | | |
| Legionella | | | | | | |
| Food Bacteriology | | | | | | |
| GC Culture-PPNG Screening | | 142,940 | 9,561 | 129,700 | 3,679 | 163,216 |
| Parasitology | | | | | | |
| Streptococcus | | | | | | |
| Filth Analysis | | | | | | |
| Rabies-FA | | 924 | 14 | 877 | 33 | 891 |
| **TB-MYCOLOGY** | | | | | | |
| **TB** | Microscopic Smears | | | | | |
| | Referred Cultures | | | | | |
| | Total Cultures | | | | | |
| Mycology | | | | | | |
| **MCH-FP** | | | | | | |
| Rh Factor | | | | | | |
| VDRL **WR** | | | | | | |
| Rubella | | | | | | |
| **CHECK SPECIMENS** | | 103 | | | | 848 |
| **TOTALS** | | 251,953 | 16,854 | 229,522 | 5,474 | 311,864 |

# TABLE 4-7
# BIRMINGHAM CLINICAL LABORATORY
# FISCAL YEAR 1984

| SEROLOGY-METABOLIC | | | SPECIMENS | POSITIVE | NEGATIVE | UNSAT | EXAMS |
|---|---|---|---|---|---|---|---|
| Hepatitis | | | | | | | |
| STS | VDRL-Routine | WR 167 | 18,323 | 523 | 17,536 | 97 | 18,972 |
| | VDRL-Premarital | WR 11 | 4,082 | 19 | 4,039 | 13 | 4,099 |
| | VDRL-Spinal Fluid | | | | | | |
| | MHA-TP | | | | | | |
| Bacterial Agglutination | | | | | | | |
| Agar Gel | | | | | | | |
| CF | Viral | | | | | | |
| | Fungal | | | | | | |
| HI | Rubella-Influenza-SLE-Dengue | | | | | | |
| IFA | FTA-ABS | | | | | | |
| | Toxoplasmosis | | | | | | |
| | Legionnaires | | | | | | |
| | Rickettsia | | | | | | |
| | Herpes | | | | | | |
| METABOLIC | Hemaglobinopathies | | | | | | |
| | PKU-Guthrie | | | | | | |
| | PKU-Chromatography | | | | | | |
| | Hypothyroid | | | | | | |
| **MICROBIOLOGY** | | | | | | | |
| Enteric | | | | | | | |
| Urine Culture | | | | | | | |
| Sanitary-Dairy | | | 5,064 | 751 | 4,284 | 29 | 15,562 |
| Potable Water | | | 15,154 | 1,496 | 13,108 | 550 | 29,662 |
| Fluorine | | | | | | | |
| Bay Water | | | | | | | |
| Shellfish | | | | | | | |
| Special Bacteriology | | | | | | | |
| Staphylococcus | | | | | | | |
| Bordetella pertussis Culture | | | | | | | |
| Bordetella pertussis FA | | | | | | | |
| Brucella | | | | | | | |
| Diphtheria | | | | | | | |
| Legionella | | | | | | | |
| Food Bacteriology | | | | | | | |
| GC Culture-PPNG Screening | | | 25,836 | 1,618 | 23,911 | 307 | 28,960 |
| Parasitology | | | | | | | |
| Streptococcus | | | | | | | |
| Filth Analysis | | | | | | | |
| Rabies-FA | | | 581 | 18 | 556 | 7 | 574 |
| **TB-MYCOLOGY** | | | | | | | |
| TB | Microscopic Smears | | | | | | |
| | Referred Cultures | | | | | | |
| | Total Cultures | | | | | | |
| Mycology | | | | | | | |
| **MCH-FP** | | | | | | | |
| Rh Factor | | | | | | | |
| VDRL | | WR | | | | | |
| Rubella | | | | | | | |
| **CHECK SPECIMENS** | | | 106 | | | | 494 |
| **TOTALS** | | | 69,146 | 4,603 | 63,434 | 1,003 | 98,323 |

## TABLE 4-8
## DECATUR CLINICAL LABORATORY
## FISCAL YEAR 1984

| SEROLOGY-METABOLIC | | | SPECIMENS | POSITIVE | NEGATIVE | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|---|
| Hepatitis | | | | | | | |
| STS | VDRL-Routine | WR | | | | | |
| | VDRL-Premarital | WR | | | | | |
| | VDRL-Spinal Fluid | | | | | | |
| | MHA-TP | | | | | | |
| Bacterial Agglutination | | | | | | | |
| Agar Gel | | | | | | | |
| CF | Viral | | | | | | |
| | Fungal | | | | | | |
| HI | Rubella-Influenza-SLE-Dengue | | | | | | |
| IFA | FTA-ABS | | | | | | |
| | Toxoplasmosis | | | | | | |
| | Legionnaires | | | | | | |
| | Rickettsia | | | | | | |
| | Herpes | | | | | | |
| META-BOLIC | Hemaglobinopathies | | | | | | |
| | PKU-Guthrie | | | | | | |
| | PKU-Chromatography | | | | | | |
| | Hypothyroid | | | | | | |
| **MICROBIOLOGY** | | | | | | | |
| Enteric | | | | | | | |
| Urine Culture | | | | | | | |
| Sanitary-Dairy | | | 1,256 | 317 | 916 | 5 | 3,393 |
| Potable Water | | | 6,963 | 518 | 6,310 | 133 | 13,233 |
| Fluorine | | | | | | | |
| Bay Water | | | | | | | |
| Shellfish | | | | | | | |
| Special Bacteriology | | | | | | | |
| Staphylococcus | | | | | | | |
| Bordetella pertussis Culture | | | | | | | |
| Bordetella pertussis FA | | | | | | | |
| Brucella | | | | | | | |
| Diphtheria | | | | | | | |
| Legionella | | | | | | | |
| Food Bacteriology | | | | | | | |
| GC Culture-PPNG Screening | | | 6,906 | 644 | 6,055 | 225 | 7,913 |
| Parasitology | | | | | | | |
| Streptococcus | | | | | | | |
| Filth Analysis | | | | | | | |
| Rabies-FA | | | | | | | |
| **TB-MYCOLOGY** | | | | | | | |
| TB | Microscopic Smears | | | | | | |
| | Referred Cultures | | | | | | |
| | Total Cultures | | | | | | |
| Mycology | | | | | | | |
| **MCH-FP** | | | | | | | |
| Rh Factor | | | | | | | |
| VDRL | | WR | | | | | |
| Rubella | | | | | | | |
| **CHECK SPECIMENS** | | | 22 | | | | 64 |
| **TOTALS** | | | 15,147 | 1,479 | 13,281 | 363 | 24,603 |

# TABLE 4-9
# DOTHAN CLINICAL LABORATORY
# FISCAL YEAR 1984

| **SEROLOGY-METABOLIC** | | SPECIMENS | POSITIVE | NEGATIVE | UNSAT. | EXAMS |
|---|---|---|---|---|---|---|
| Hepatitis | | | | | | |
| **STS** | VDRL-Routine **WR** 192 | 36,402 | 1,541 | 34,592 | 77 | 38,320 |
| | VDRL-Premarital **WR** 10 | 5,642 | 42 | 5,579 | 11 | 5,680 |
| | VDRL-Spinal Fluid | | | | | |
| | MHA-TP | | | | | |
| Bacterial Agglutination | | | | | | |
| Agar Gel | | | | | | |
| **CF** | Viral | | | | | |
| | Fungal | | | | | |
| **HI** | Rubella-Influenza-SLE-Dengue | | | | | |
| **IFA** | FTA-ABS | | | | | |
| | Toxoplasmosis | | | | | |
| | Legionnaires | | | | | |
| | Rickettsia | | | | | |
| | Herpes | | | | | |
| **META-BOLIC** | Hemaglobinopathies | | | | | |
| | PKU-Guthrie | | | | | |
| | PKU-Chromatography | | | | | |
| | Hypothyroid | | | | | |
| **MICROBIOLOGY** | | | | | | |
| Enteric | | | | | | |
| Urine Culture | | | | | | |
| Sanitary-Dairy | | 2,192 | 615 | 1,575 | 2 | 6,477 |
| Potable Water | | 10,595 | 87 | 9,496 | 1,012 | 19,503 |
| Fluorine | | | | | | |
| Bay Water | | 190 | 44 | 137 | 9 | 380 |
| Shellfish | | 168 | 32 | 136 | | 1,142 |
| Special Bacteriology | | | | | | |
| Staphylococcus | | | | | | |
| Bordetella pertussis Culture | | | | | | |
| Bordetella pertussis FA | | | | | | |
| Brucella | | | | | | |
| Diphtheria | | | | | | |
| Legionella | | | | | | |
| Food Bacteriology | | | | | | |
| GC Culture-PPNG Screening | | 49,471 | 3,709 | 44,502 | 1,260 | 58,162 |
| Parasitology | | | | | | |
| Streptococcus | | | | | | |
| Filth Analysis | | | | | | |
| Rabies-FA | | 320 | 7 | 304 | 9 | 311 |
| **TB-MYCOLOGY** | | | | | | |
| **TB** | Microscopic Smears | | | | | |
| | Referred Cultures | | | | | |
| | Total Cultures | | | | | |
| Mycology | | | | | | |
| **MCH-FP** | | | | | | |
| Rh Factor | | | | | | |
| VDRL **WR** | | | | | | |
| Rubella | | | | | | |
| **CHECK SPECIMENS** | | 89 | | | | 506 |
| **TOTALS** | | 105,069 | 6,279 | 96,321 | 2,380 | 130,481 |

# TABLE 4-10
# MOBILE CLINICAL LABORATORY
# FISCAL YEAR 1984

| **SEROLOGY-METABOLIC** | | | **SPECIMENS** | **POSITIVE** | **NEGATIVE** | **UNSAT.** | **EXAMS** |
|---|---|---|---|---|---|---|---|
| Hepatitis | | | 705 | | | | 919 |
| **STS** | VDRL-Routine | **WR** 1,212 | 39,493 | 3,554 | 33,461 | 1,283 | 45,035 |
| | VDRL-Premarital | **WR** 117 | 8,359 | 92 | 8,042 | 108 | 8,667 |
| | VDRL-Spinal Fluid | | 1,051 | 3 | 1,034 | 14 | 1,054 |
| | MHA-TP | | 2,658 | | | | 2,658 |
| Bacterial Agglutination | | | 47 | 10 | 59 | | 71 |
| Agar Gel | | | 1,266 | 189 | 1,074 | 3 | 2,677 |
| **CF** | Viral | | 2,230 | | | | 10,504 |
| | Fungal | | 1,212 | | | | 4,848 |
| **HI** | Rubella-Influenza-SLE-Dengue | | 939 | | | | 2,386 |
| **IFA** | FTA-ABS | | 1,095 | 42 | 1,042 | 3 | 1,118 |
| | Toxoplasmosis | | 426 | 116 | 310 | | 432 |
| | Legionnaires | | 351 | | | | 354 |
| | Rickettsia | | | | | | |
| | Herpes | | | | | | |
| **META-BOLIC** | Hemaglobinopathies | | 40,651 | | | 102 | 46,892 |
| | PKU-Guthrie | | 98,192 | 2 | | | 98,192 |
| | PKU-Chromatography | | 129 | | | | 395 |
| | Hypothyroid | | 97,777 | 10 | | 9,329 | 137,304 |
| **MICROBIOLOGY** | | | | | | | |
| Enteric | | | 2,970 | 893 | 2,054 | 23 | 3,611 |
| Urine Culture | | | | | | | |
| Sanitary-Dairy | | | 4,548 | 800 | 3,724 | 24 | 14,930 |
| Potable Water | | | 16,858 | 1,039 | 15,159 | 613 | 33,111 |
| Fluorine | | | | | | | |
| Bay Water | | | | | | | |
| Shellfish | | | | | | | |
| Special Bacteriology | | | 767 | 622 | 43 | 78 | 19,833 |
| Staphylococcus | | | 34 | 23 | 10 | 1 | 31 |
| Bordetella pertussis Culture | | | 18 | 1 | 16 | 1 | 55 |
| Bordetella pertussis FA | | | 26 | 8 | 18 | | 298 |
| Brucella | | | 2 | | 2 | | 98 |
| Diphtheria | | | 9 | | 8 | 1 | 24 |
| Legionella | | | 158 | 20 | 120 | 4 | 2,272 |
| Food Bacteriology | | | 169 | 13 | 155 | 1 | 717 |
| GC Culture-PPNG Screening | | | 64,479 | 6,305 | 57,620 | 1,027 | 77,118 |
| Parasitology | | | 15,784 | 1,955 | 12,891 | 938 | 14,721 |
| Streptococcus | | | 453 | 16 | 437 | | 498 |
| Filth Analysis | | | 4 | 4 | | | 4 |
| Rabies-FA | | | 1,106 | 59 | 1,031 | 16 | 1,492 |
| **TB-MYCOLOGY** | | | | | | | |
| **TB** | Microscopic Smears | | 22,518 | 726 | 21,125 | 667 | 21,851 |
| | Referred Cultures | | 808 | | | | |
| | Total Cultures | | | 1,655 | 19,220 | 1,004 | 133,411 |
| Mycology | | | 3,170 | | | | 29,696 |
| **MCH-FP** | | | | | | | |
| Rh Factor | | | 12,438 | 8,962 | 3,365 | 111 | 20,186 |
| VDRL | | **WR** 181 | 25,596 | 260 | 24,852 | 303 | 25,734 |
| Rubella | | | 12,197 | 10,460 | 1,668 | 86 | 13,263 |
| **CHECK SPECIMENS** | | | 695 | | | | 1,823 |
| **TOTALS** | | | 481,388 | 39,349 | 208,540 | 15,740 | 778,283 |

# Bureau of Dental Health

# BUREAU OF DENTAL HEALTH

## Division of Education and Prevention

Many years ago Bureau of Dental Health administrators realized that the most cost-effective mode for providing dental health services to Alabamians was through preventive programs. Thus, the Bureau of Dental Health established educational and other prevention-based programs as its structural foundation. In 1974 these programs were organized and titled the Alabama Smile Keeper Program.

Very few could dispute that an ounce of prevention is worth a pound of cure, especially when the cost of prevention activities is compared with the cost of treatment. The cost of program deliveries ranges from 36 cents to $2.50 per child for fluoride mouthrinse and school education programs, compared to over $32 for the average cost per clinical visit. Certainly clinical programs must continue to provide treatment for existing dental diseases. However, treatment may be rendered in vain without education for maintenance and prevention.

The Division of Education and Prevention comprises one major segment of the Bureau of Dental Health's Alabama Smile Keeper Program. Under this division are school dental health education programs including public schools, private schools, colleges and vocational schools; Head Start education programs; nursing home education programs; education for the handicapped; education for summer camps and special programs; adult and professional education programs; health fairs; community activity and sealant programs. The success of these preventive programs during 1984 is outlined as follows:

**School Dental Health Education**—A significant increase was evident in the number of school systems, elementary teachers and children receiving educational assistance in 1984. Twenty-three school systems, consisting of 161 elementary schools, were visited by bureau staff members and local volunteers during this calendar year. Figures show that 40,731 elementary teachers and children received this school-based program during 1984.

Table 5-1 depicts the steady increase over the past five years, attributed to staff dedication, enthusiasm, extensive travel and cooperation from local dental professionals, school nurses and other volunteers across the state.

TABLE 5-1
ELEMENTARY SCHOOL DENTAL HEALTH
EDUCATION PROGRAMS
1980-1984

| Year | Number of School Systems | Number of Students | Number of Teachers | Total |
|---|---|---|---|---|
| 1980 | 14 | 23,454 | 1,028 | 24,482 |
| 1981 | 14 | 27,447 | 982 | 28,429 |
| 1982 | 12 | 29,653 | 1,183 | 30,836 |
| 1983 | 19 | 33,862 | 1,176 | 35,038 |
| 1984 | 23 | 39,174 | 1,557 | 40,731 |

During summer months staff members conducted educational sessions for graduate students at the University of Alabama at Birmingham, for underprivileged youngsters at Camp Exchange and for Talladega County underprivileged children who were participating in the National Youth Sports Program.

Other educational activities conducted outside the elementary sites included educational seminars for dental assistant students, dental hygiene students and vocational education students. The recipients are shown in Table 5-2.

TABLE 5-2
COLLEGE, CAMP, VOCATIONAL
SCHOOL PROGRAMS
1984

| Program | Number of Students |
|---|---|
| Trenholm Tech. Dental Assistant Program | 25 |
| UAB Dental Hygiene Program | 20 |
| UAB Health Education Graduate Program | 128 |
| Camp Exchange (8 weekly sessions) | 378 |
| National Youth Sports Program—<br>Talladega College | 289 |
| Hale County Area Vocational School | 18 |
| Monroe County Area Vocational School | 30 |
| Blount County Area Vocational School | 60 |
| TOTAL | 948 |

The progress made during 1984 can also be attributed to the addition of another dental education consultant who joined the staff in February 1984. The Bureau of Dental Health now employs five dental education consultants. Together with a preventive programs coordinator and the director they strive continuously to serve Alabamians with numerous preventive programs, while maintaining excellent program quality.

Table 5-3 shows the extent of school presentations during 1984 by public health area.

### TABLE 5-3
### SCHOOL DENTAL HEALTH EDUCATION PROGRAMS
### 1984

| School System | No. of Students | No. of Teachers | No. of Schools |
|---|---|---|---|
| **PHA I** | | | |
| Cullman County | 500 | 32 | 7 |
| Decatur City | 985 | 37 | 11 |
| Franklin County | 1,950 | 85 | 6 |
| Hartselle City | 1,400 | 52 | 2 |
| Jackson County | 1,800 | 60 | 4 |
| Lawrence County | 4,000 | 158 | 9 |
| TOTAL | 10,635 | 424 | 39 |
| **PHA IV** | | | |
| Ft. Payne City | 570 | 18 | 1 |
| Piedmont City | 1,200 | 44 | 2 |
| Talladega County | 5,155 | 224 | 15 |
| TOTAL | 6,925 | 286 | 18 |
| **PHA V** | | | |
| Alabama Christian | 187 | 9 | 1 |
| Butler County | 3,000 | 150 | 6 |
| Coffee County | 1,091 | 43 | 5 |
| Daleville City | 800 | 24 | 1 |
| Eufaula City | 1,200 | 55 | 4 |
| Henry County | 1,770 | 97 | 5 |
| Macon County | 1,400 | 38 | 7 |
| Maxwell AFB School | 500 | 38 | 1 |
| Opp City | 1,200 | 42 | 2 |
| TOTAL | 11,148 | 496 | 32 |
| **PHA VI** | | | |
| Linden City | 500 | 21 | 1 |
| Marengo County | 1,606 | 71 | 4 |
| Mobile County | 3,000 | 118 | 52 |
| Monroe County | 3,160 | 58 | 7 |
| Washington County | 2,200 | 83 | 8 |
| TOTAL | 10,466 | 351 | 72 |
| GRAND TOTAL | 39,174 | 1,557 | 161 |
| COMBINED TOTALS (Teachers & Students) 40,731 | | | |

**Public Health Nurses**—During the past year a very in-depth dental education program was developed for Alabama's public health nurses. The quite technical program format was approved for continuing education units for the nurses.

The program content covered practical information including the causes and control of dental disease. It also dealt with the less familiar oral problems such as oral cancer and general health-related oral problems.

With the increased use of smokeless tobacco and chewing tobacco, oral cancer is rising at an alarming rate. With this fact in mind, a good portion of time was devoted to increasing the nurses' awareness of the rising incidence of oral cancer. Slides depicting various types of oral cancer were viewed and thoroughly discussed. Contributing factors, treatment and long-term effects of the disease were outlined.

The nurses were encouraged to begin conducting soft tissue examinations on a more routine basis. Examinations should be done most frequently on the elderly; but also on young adults with whom the greatest increase in the use of smokeless tobacco products is being seen.

With access to so many patients in various age categories, the nurses will have a tremendous impact on this problem. The preventive health facts they can give the young people on oral cancer should subsequently reduce the number who begin to use tobacco products. Possibly those who are using tobacco products will be encouraged to give up the habit.

A complete medical screening on preschool children is an invaluable service provided by public health nurses. At the time of the medical screening a dental screening is also done. Many dental problems are identified and children are referred for treatment.

The nurses were given a step-by-step guide as to the progression of dental caries and periodontal disease. With greater knowledge in these areas, the nurses can appropriately refer the children for treatment, thereby reducing the number of school days lost due to dental emergencies.

Many public health nurses make home health visits with the elderly and handicapped. The program presented by the Bureau of Dental Health thoroughly covered all oral health problems unique to these population groups.

Table 5-4 recounts dental program activities with public health nurses by area.

### TABLE 5-4
### PUBLIC HEALTH NURSES' DENTAL PROGRAM ACTIVITY BY PUBLIC HEALTH AREA
### 1984

| Area | City | Number Attending |
|---|---|---|
| Public Health Area I | Decatur | 18 |
| | Huntsville | 16 |
| | Tuscumbia | 32 |
| Public Health Area II | Tuscaloosa | 28 |
| Public Health Area III | Birmingham | 16 |
| Public Health Area IV | Gadsden | 31 |
| | Oxford | 32 |
| Public Health Area V | Auburn | 25 |
| | Dothan | 17 |
| | Dothan | 25 |
| | Prattville | 30 |
| | Troy | 18 |
| Public Health Area VI | Monroeville | 32 |
| | Selma | 27 |
| TOTAL | Programs—14 | 347 |

**Head Start Program**—During the past year the Bureau of Dental Health presented dental health education workshops to 10 Head Start programs.

A total of 149 teachers and 149 teachers' aides were taught the latest concepts in the causes and control of dental disease as related to the Head Start student. A breakdown of these activities is found in Table 5-5.

### TABLE 5-5
### DENTAL HEALTH EDUCATION PROGRAMS HEAD START ACTIVITY BY PUBLIC HEALTH AREAS
### 1984

| Program | Children | Teachers | Aides |
|---|---|---|---|
| **PHA I** | | | |
| Cullman County (Cullman) | 360 | 18 | 18 |
| Colbert-Lauderdale (Florence) | 500 | 25 | 25 |
| Tuscumbia City | 120 | 6 | 6 |
| Cullman City* | | | |
| Cullman County* | | | |
| Madison County* | | | |
| **PHA II** | | | |
| Pickens County Consultation Meeting | | | |
| **PHA III** | | | |
| Walker-Winston County (Jasper) | 100 | 5 | 5 |
| Walker-Winston County* | | | |
| **PHA IV** | | | |
| Ft. Payne City | 520 | 26 | 26 |
| CAA-Calhoun-Cleburne (Anniston) | 252 | 14 | 13 |
| Chambers-Tallapoosa-Coosa (LaFayette) | 670 | 34 | 35 |
| **PHA V** | | | |
| Dothan City (Dothan) | 160 | 8 | 8 |
| Lowndes County (Hayneville) | 220 | 11 | 11 |
| Eufaula Head Start (Eufaula) | 40 | 2 | 2 |
| Phenix City Board of Education* | | | |
| Dothan City* | | | |
| S.E.A.R.P.—Dothan* | | | |
| Macon County* | | | |
| **PHA VI** | | | |
| Berean Baptist* (Marion) | | | |
| TOTAL | 2,942 | 149 | 149 |

*Indicates Program Evaluations (9)

Teaching aids and suggestions on how the teachers could most appropriately integrate dental health in the classroom were demonstrated and discussed.

Educational booklets and kits containing a toothbrush, dental floss and a parental brochure were provided for some 2,942 children. The teachers are required by Head Start guidelines to mention good oral hygiene in the classroom on a daily basis; and they must also have the children brush their teeth after lunch each day.

The bureau was also involved in making comprehensive evaluations of nine Head Start programs. These evaluations are done to assure that program performance standards and guidelines are being met. This involves evaluating dental treatment, dental education and the completeness of dental records on every Head Start child.

If discrepancies in any of the areas are found, the consultant from the Bureau of Dental Health will discuss the problem and make suggestions on how the out-of-compliance areas can be corrected. The consultant will then follow up on bringing the program into compliance, which subsequently saves money for the program and aids in assuring quality treatment of Head Start children.

**Programs in the Work Place**—The Bureau of Dental Health will be launching a new and most exciting program concept during the forthcoming year. A dental health education program designed for the work place setting is currently being initiated for two of Alabama's largest textile corporations. West Point Pepperell Mills and the Russell Corporation have enthusiastically agreed to participate in this new education and survey program during 1985.

The program will begin with dental in-service workshops for corporate and industrial nurses, doctors and other industrial medical personnel. After these training sessions have been completed, employee screenings and surveys complete with patient education will begin.

After much research and study, it has been found that many employee work days are lost due to dental problems. If employees could be educated in the preventive dental health measures they should practice, many serious dental problems could be avoided, subsequently saving millions of dollars for both industry and the employee.

**Nursing Home Program**—An annual dental health in-service program is now a requirement for every extended care facility in the state. This guideline is required and evaluated by the Bureau of Licensure and Certification.

The Bureau of Dental Health presented a dental health education program for staff members of the Bureau of Licensure and Certification. The program format was developed in an effort to acquaint those staff members who are responsible for evaluating care and performance in extended care facilities with the unique dental health problems of the critically ill and elderly population. If a facility is found to be out of compliance with regard to dental health regulations, it is usually suggested that the facility administrator or director of nursing contact the Bureau of Dental Health for an in-service training program.

With the detection of cancerous oral lesions being a high priority, the Bureau of Dental Health has updated audiovisual aids and has demonstrated to nurses and aides the procedures to follow when doing a soft tissue examination. It is recommended that each facility perform a soft tissue exam on residents every six months.

To follow up on requests for training, 14 facilities received the program, with 740 staff members and 2,298 patients directly benefiting. The educational format was developed in an effort to provide the most useful and practical methods of providing quality oral hygiene and good dental health programs for all elderly Alabamians.

**Program for the Handicapped**—This year as in past years, school officials and teachers at McInnis School in Montgomery requested continued support and evaluation of their dental program for their special students.

Twenty-one teachers and 42 teacher aides have attended workshops presented on a yearly basis by the Bureau of Dental Health since the dental program began four years ago. The teachers and aides are enthusiastic about staying abreast of the latest and most appropriate methods of teaching good oral hygiene to their handicapped students.

The teachers first work with all children and their parents in an effort to orient them toward improved oral hygiene and dental health. Then consultants from the bureau visit each classroom. Each child is evaluated with consideration being made as to the child's particular mental and physical limitations. After the evaluation a home care program is developed for each child, and the parents are encouraged to adhere to the program.

A similar dental program was initiated at the Childrens' Center of Montgomery. Although the number of students was smaller, it was still quite a challenge since many of the children were deaf and blind.

All of the children participating in both of these programs received a toothbrush, dental floss and educational materials which were developed by the bureau staff especially for handicapped students. Great improvement has been seen in the oral hygiene and dental health of the children at both McInnis School and the Children's Center of Montgomery.

A total of 200 children benefited from the oral hygiene care provided at school; and many dental problems were corrected as a result of the referral program.

**Clinical Activity and Surveys**—The DeKalb County Health Department has a unique situation in that the country band Alabama donates funds for dental services. These funds are for underprivileged children who normally would go without these services were it not for the musical group's generosity. Group members are well known for their efforts to assist the needy, especially in their home community.

## Division of Dental Health Services

**Mobile Dental Health Unit**—The Mobile Dental Health Unit was located in Bullock County at Union Springs Elementary School during January and February 1984. Children from kindergarten through fourth grades were given dental care. Treatment included examinations, X-rays, prophylaxis, topical fluorides, patient education, sealants, fillings and extractions. Two hundred fifteen visits resulted in 72 completions, with 255 teeth sealed and 23 teeth filled.

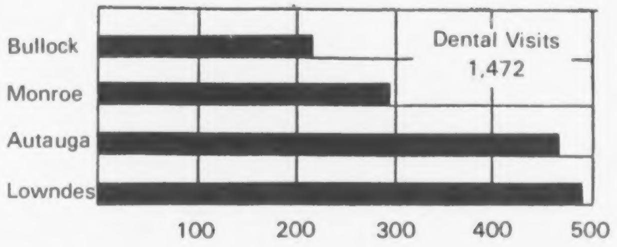
The unit moved to Monroe County where the usual dental care was given during March, April and May 1984. There were 294 visits to the unit at Monroeville Elementary School with 121 completions. Three hundred thirty-one teeth were sealed and 151 teeth were filled.

The mobile unit spent the summer months of June, July and August 1984 at the Autauga County Health Department in Prattville. This made the third consecutive summer Prattville was given dental care, and many recall patients were seen. There were 468 visits with 203 completions, 780 teeth sealed and 427 teeth filled.

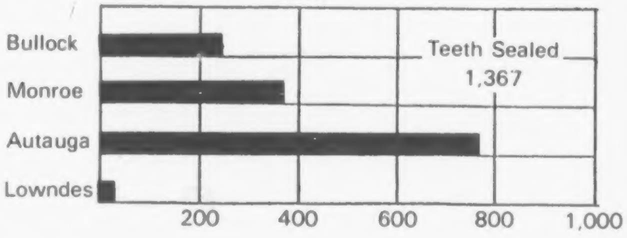
The final four months of 1984 (September, October, November and December) were spent in Lowndes County at Central Elementary School in Mosses. Four hundred ninety-five visits were made with 196 completions. Four hundred ten teeth were filled. The outstanding cooperation from school officials helped make this one of the best locations ever. The dental assistants from the vocational school were the best the Bureau of Dental Health has ever had.

Totals for the Mobile Dental Health Unit in the four counties served in 1984 are reflected in Graph 5-1, Graph 5-2, Graph 5-3 and Graph 5-4.

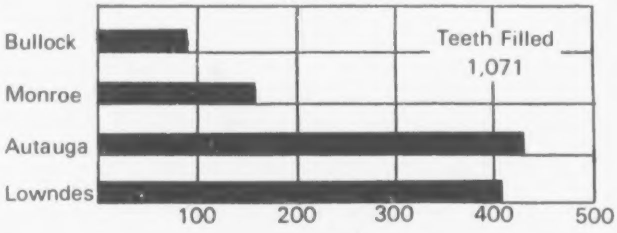
GRAPH 5-1
DENTAL VISITS TO MOBILE UNIT
1984



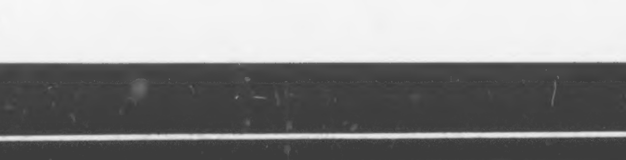
GRAPH 5-2
TEETH SEALED, MOBILE UNIT
1984



GRAPH 5-3
TEETH FILLED, MOBILE UNIT
1984



GRAPH 5-4
PATIENTS COMPLETED, MOBILE UNIT
1984



The four graphs on the previous page indicate the number of dental visits, teeth sealed, teeth filled and patients completed in the mobile unit. The emphasis differed in each location.

Table 5-6 identifies the extent of direct dental services provided by the mobile unit. It details the number of services provided to patients by type in the four counties served by the unit during 1984.

Table 5-7 gives the total number of services provided by the Bureau of Dental Health as a whole for 1984. Each type of treatment rendered was recorded. A comparison with statistics for 1983 shows that the total number of visits increased by 60 in 1984.

### TABLE 5-6
### DENTAL SERVICES
### DENTAL HEALTH MOBILE UNIT
### 1984

| | |
|---|---|
| Total Visits | 1,472 |
| Number Patients | 898 |
| X-rays | 108 |
| Prophylaxis | 51 |
| Topical Fluorides | 14 |
| Patient Education | 871 |
| Sealants | 1,367 |
| Amalgam Surfaces | 913 |
| Composite Surfaces | 258 |
| Perio Treatment | 38 |
| Surgery | 88 |
| Others | 2 |
| Completions | 592 |

**Clinical Program**—The Bureau of Dental Health also supplied the dental clinician for the dental clinic at Drake Elementary School in Auburn. The Lee County Health Department, churches, United Way and the state health department all have made this clinic possible. The clinic, which has operated for about 14 years, could serve as a model for other dental clinics.

Activities in 1984 saw 703 visits, 553 examinations, 50 X-rays, 46 prophylaxis, 529 patient education, 1,957 sealants, 356 teeth filled, 31 gum treatments and 556 completions.

The combined total activities for the mobile unit and for the Auburn clinic for 1984 are 2,175 visits, 1,451 examinations, 158 X-rays, 97 prophylaxis, 1,400 patient education encounters, 3,324 teeth sealed, 1,427 fillings, 75 gum treatments, 97 extractions and 1,148 patients completed.

### TABLE 5-7
### DENTAL SERVICES
### BUREAU OF DENTAL HEALTH
### 1984

| | |
|---|---|
| Total Visits | 2,175 |
| Number Patients | 1,451 |
| X-rays | 158 |
| Prophylaxis | 97 |
| Topical Fluorides | 16 |
| Patient Education | 1,400 |
| Sealants | 3,324 |
| Amalgam Surfaces | 1,251 |
| Composite Surfaces | 176 |
| Perio Treatment | 75 |
| Surgery | 97 |
| Others | 7 |
| Completions | 1,148 |

## Surveys and Community Involvement

**Surveys**—This calendar year the Bureau of Dental Health combined the dental survey program with a toothbrush comparison study. Five hundred Baldwin County seventh and eighth grade students were the recipients of the program. Initially, these students received a dental health lecture slide orientation and were introduced to the toothbrushes being studied.

Three hundred one students returned for a dental examination. The examinations were conducted by dentists who had agreed to follow certain criteria for the study. The students' gingival and plaque indexes were recorded. Each child was also given a toothbrush to use for the duration of the study. Early next year a subsequent examination will be made and the effectiveness of the brushes will be evaluated.

Dental charts for each student recorded the number of decayed, missing and filled teeth. The charts also indicated the amount of fluorosis present in the permanent teeth. This information, along with a history of residency on each student, will be useful in comparing the dental status in various communities throughout Alabama.

During the survey dentists made note of individual dental needs. The students were given a referral slip indicating a general description of the problem and were encouraged to submit this to their family dentists. It is necessary to periodically examine and assess the dental status of Alabama's children. The information obtained is strictly confidential although general statements and numbers may be made available to national organizations.

**Health Fairs**—Community health fairs were conducted throughout the state by local chambers of commerce and other organizations. The Bureau of Dental Health provided portable dental equipment and support personnel for the dental component on a request basis. The dental screenings were designed to detect oral cancers and promote dental awareness in the community. Local dentists conducted the screenings as a public service.

Autauga, Elmore and Montgomery counties were among the many who sponsored the fairs. A total of 450 persons was screened. Civic centers, nursing homes and churches were the sites for the six separate fairs in these counties.

Health fairs present an excellent opportunity for the public and private health care providers to work cooperatively with community leaders in the promotion of dental health throughout the state.

**Community Requests**--This bureau, like numerous others, receives requests for information on a daily basis. The majority of these requests originate from various levels of educational institutions. Records indicate that 2,480 various pamphlets of an informative and instructional nature were distributed this year in Alabama. The out-of-state requests comprise an additional 1,500 pieces of educational literature.

An increase in requests from the general public is noteworthy this year. It seems that media coverage concerning a possible vaccine to eliminate dental decay is attributed to this increase. Another area of interest to the public was oral cancer and its relation to smoking, and the widely advertised smokeless tobacco products.

This bureau attempts to answer every request in a personal and professional manner. Requests unrelated to the field of dentistry are referred to the Bureau of Primary Prevention.

## Sealant Program

This is the fourth consecutive year the Bureau of Dental Health has been actively involved in the use of pit and fissure sealants. Sealants may become one of the great breakthroughs in preventive dentistry. In the past dentistry has dealt primarily with treating a tooth after it has decayed. The treatment in restoring this problem usually entailed drilling away tooth structure that is irreplaceable. The cavity is then filled with a restorative material that is sometimes costly and unattractive.

The extent of the Sealant Program in Alabama is limited because of the yet-to-be-determined appropriateness of sealant applications in a public health setting. The Bureau of Dental Health is trying to convince the Board of Dental Examiners of Alabama to allow dental hygienists to place sealants, under the direct supervision of a dentist.

Continuing education programs on sealants for dentists and their staffs were held throughout the state this past year. Faulkner Junior College, John C. Calhoun State Community College, Northwest Alabama Regional Health Department, and private dental offices were the sites for these courses.

A demonstration program of application of occlusal sealants is planned for Wilcox County students in January of 1985. Approximately 120 students will be involved in this program.

Dental sealants have been available for more than a decade and are gaining acceptability among both private and public sectors of preventive dentistry. Dental decay may become a dreaded disease of the past with the increased knowledge, techniques and new sealant materials which those responsible for the Sealant Program hope will be a forerunner.

**Fluoridation**—The fluoridation of public water supplies continues to be one of the main areas of interest of the Bureau of Dental Health. This is due to its low cost and effectiveness, in addition to the bureau's philosophy of prevention instead of treatment.

Numerous contacts and visits were made during the year with citizens, mayors, city council members, dentists and water board personnel in an attempt to obtain the passage of ordinances to fluoridate or regarding the actual initiation of fluoridation. Efforts were rewarded with ordinances adopted for the Carbon Hill, Freemanville, Madison County, Southside, Sumiton and Pelham water systems.

The passage of an ordinance for the City of Pelham was the climax of many weeks of hard work by the regional health officer and her staff; by local citizens; and by members of the Bureau of Dental Health staff. Before the issue of adopting an ordinance could be addressed by the city council, it was decided to let the citizens of Pelham vote on the issue of fluoridating their water. A well-organized promotion program resulted in a victory by more than a 3-to-1 margin for those favoring fluoridation. The council passed an ordinance to fluoridate at its next meeting.

Water systems which initiated fluoridation during 1984 were Silverhill, Fort Deposit, Southside, Jackson and Freemanville. The population now receiving fluoridated water in the state totals 2,662,742.

**Fluoride Brush-In Program**—In selecting school systems for the 1984 Fluoride Brush-in Program, it was necessary to stipulate certain criteria. The school systems were to be located in non-fluoridated areas of Alabama and the Alabama Smile Keeper Dental Health Education Program was to be presented in conjunction with the Brush-in Program. Consolidating these two programs enhanced their cost effectiveness.

Approximately 6,360 students and teachers brushed with concentrated 2.2 percent acidulated phosphate fluoride paste. The sessions were conducted in large group and individual classes. It was determined that the classrooms were more effective. Support from the local dental profession in terms of volunteer work did much to lessen the total cost of the program. The familiar faces added that important personal touch. Brush-in participants are listed in Table 5-8.

### TABLE 5-8
### FLUORIDE BRUSH-IN PROGRAM
### 1984

| System | No. of Classes | No. of Participants | No. of Volunteers |
|---|---|---|---|
| Chilton County | 65 | 2,000 | 8 |
| Monroe County | 127 | 3,160 | 4 |
| Piedmont City | 36 | 1,200 | 4 |
| TOTAL | 228 | 6,360 | 16 |

**Fluoride Mouthrinse Program**—The most cost effective school-based program the Bureau of Dental Health offers is the fluoride mouthrinse program. The tremendous assistance of local volunteers throughout the state makes this possible. While this bureau purchases and delivers necessary supplies, coordinates and monitors the statewide program, voluntary local supervisors provide the actual implementation.

These supervisors range from school nurses to dental professionals, vocational education students to teachers, and principals to parents. Each week of the school year they devote time for mixing, delivering, dispensing and supervising the program in 62 Alabama public and private school systems. Within these systems, 292 schools participate as 98,683 children and 3,208 teachers rinse with the 0.2 percent natural sodium fluoride solution. Records state that a combined total of 101,891 individuals participated in this program for 33 weeks during 1984.

Even with changes in state guidelines, and Alabama schools committing to implement the "Plan for Excellence," these 292 schools believe in this important dental activity because of its simplicity, safety and effectiveness. School officials agree that the five minutes weekly required away from the academic program is well justified due to the enhancement of their students' health. They realize the evident need since the program participants reside in non-fluoridated areas of Alabama. Most of these children are afflicted with rampant tooth decay and miss numerous days of school with dental pain. Through the supplemental fluoride program, these children can obtain an approximate 35 percent reduction in future decay and thus enjoy better overall health.

Table 5-9 lists participation in Fluoride Mouthrinse programs for the past eight years. For the first time during this time span, there was a slight reduction in participants. This was due to expansion in water fluoridation. As new water systems begin to fluoridate, schools within the locality will discontinue mouthrinsing at school. Optimally, such is the bureau's goal since water fluoridation is more effective, less costly and covers a much broader scope of population. With continued growth in fluoridation, the Fluoride Mouthrinse Program may begin to show a steady decline.

### TABLE 5-9
### PARTICIPATION IN FLUORIDE MOUTHRINSE PROGRAM
### 1977-1984

| Year | Teachers | Children | Total Participants |
|---|---|---|---|
| 1977 | 26 | 500 | 526 |
| 1978 | 90 | 2,300 | 2,390 |
| 1979 | 387 | 8,908 | 9,295 |
| 1980 | 1,307 | 29,400 | 30,707 |
| 1981 | 2,575 | 57,718 | 60,293 |
| 1982 | 2,436 | 79,590 | 82,026 |
| 1983 | 3,510 | 106,400 | 109,910 |
| 1984 | 3,208 | 98,683 | 101,891 |

The fluoridated water systems of Alabama are listed as follows. Finally, Table 5-10 gives a breakdown of the number of children, teachers and schools participating in the Fluoride Mouthrinse Program by public health area and county.

### LISTING OF NATURALLY FLUORIDATED WATER SYSTEMS OF ALABAMA

- Andalusia
  - Heath
    - Gantt
  - Libertyville
- Arley
- Bakerhill
- Belk
- Brundidge
  - Banks
- Camden
- Chapman
- Demopolis
- Eutaw
- Forkland
- Geiger
- Georgiana
- Greenville
- Hillsboro
- Linden
  - South Marengo
- Meadowbrook #1 and 2
- Orrville
- Pineapple
- Pintlalla
- Ramer
- Sellers
- Shady Acres Subdivision
- Starmont Subdivision
- Thomaston
- Wilcox County

## LISTING OF FLUORIDATED WATER SYSTEMS OF ALABAMA—1984

- Abbeville
  - Bethlehem
  - Capps
  - Will's Crossroads
- Albertville
  - Boaz
    - Crems
    - New Union
    - Sardis City
  - Douglas
    - Marshall-Blount
- Alexander City
  - Cedar Grove
  - Daviston
  - Kellyton
  - New Site
  - Ray Community
  - Rockford
  - South Tallapoosa
- Aliceville
- Anniston
  - Anniston Army Depot
  - Fort McClellan
  - Hobson City
  - Oxford
- Arab
  - Joppa, Hulaco & Ryan
  - Union Grove
- Athens
  - Limestone Co.
- Atmore
- Auburn
- Bay Minette
  - Pine Grove
  - Rock Hill
  - White House
- Birmingham
  - Bessemer
    - Pleasant Grove
  - Brookside
  - Graysville
    - West Jefferson
  - Mulga
- Brantley
- Butler
- Centre
  - Cedar Bluff
- Centreville
  - Bibb Co.
- Cherokee
  - Barton
  - White Pike
- Clay County
  - Ashland
    - Millerville
  - Lineville
- Cullman
  - East Cullman
  - Cullman Co. Comm.
  - Johnson's Crossing
  - Southland Water
  - V A W
  - Walter
- Dadeville
  - Jackson Gap
  - Walnut Hill
- Daleville
- Daphne
  - Belforest
- Park City
- Decatur
  - Trinity
  - W. Morgan
- Dothan
  - Napier Field
- Enterprise
  - Bethany
- Eufaula
- Fairhope
- Fayette
  - Cain's Ridge
- Florence
  - Chisholm Heights
  - East Lauderdale
    - Lexington
  - West Lauderdale
  - Waterloo
- Foley
- Fort Deposit
  - Logan
- Fort Payne
  - Mentone
  - N. E. Alabama
- Fort Rucker
- Freemanville
- Gadsden
  - Attalla
  - Highlands
  - Rainbow City
  - Tillison Bend
  - West Etowah
    - Big Will's
- Gordo
- Grand Bay
- Guin
- Gulf Shores
- Guntersville
  - Asbury
- Haleyville
  - Double Springs
- Hartselle
  - Falkville
- Headland
- Heflin
  - Edwardsville
- Holtville
- Huntsville
- Irondale
- Jackson
  - McVay
    - Salitpa
- Jacksonville
- Jasper
  - Boldo
  - Cordova
  - Curry-Thach
  - Oakman
  - Parrish
  - Providence
  - Townley
- LaFayette
- Livingston
- Luverne
- Macedonia
- Madison County
  - Bentley Subdivision
- Mobile
- Monroeville
  - Mexia
  - Peterman
- Montevallo
- Montgomery
  - East Montgomery
  - Elmore Co. Trans.
    - Redland
  - Maxwell AFB
  - Montgomery North
    - Red Eagle Hon. Farm
  - Wallsboro-Santuck
  - Wetumpka
- Moulton
  - Courtland
  - West Lawrence
- Muscle Shoals
  - Colbert County
  - Spring Valley
    - LaGrange Mount.
- North Marshall (Grant)
  - Swearingin
  - Valley
- Northeast Morgan
  - Sherbrooke
- Oneonta
- Opelika
- Orange Beach
- Ozark
- Pell City
- Perdido Bay
  - Ono Island
- Phenix City
  - Smith's Station
- Pine Hill
  - Thomasville
- Prattville
- Prichard
  - Citronelle-Semmes
- Redstone Arsenal
- Russellville
  - Isbell
  - Rockwood
  - Siloam
  - Waco
- Scottsboro
  - Cumberland
- Section-Dutton
  - North Jackson
  - Sand Mountain
- Selma
- Sheffield
- Silverhill
- Southside
- Summerdale
- Sylacauga
  - Stewartville
- Talladega
- Tallassee
  - Eclectic
    - Friendship
    - Wall Street
- Troy
  - Pike County
- Trussville
  - Argo
- Tuscaloosa
  - Coaling
  - Englewood Hull
  - Fosters-Ralph
  - Mitchell
  - Northport
    - Sandsprings
  - Peterson
- Tuscumbia
  - Littleville
- Tuskegee
  - Macon Conty
    - Franklin
  - Notasulga
    - Loachapoka
  - Star-Mindingall
- Upper Bear Creek
  - Bear Creek
  - Phil Campbell
- Vernon
  - Lamar Co.
- Warrior
- Warrior River Auth.
- West Point Pepperell
  - East Alabama
  - Huguley
  - Lanett
  - Lee-Chambers
- Winfield
- York
  - Cuba
  - Sumter County

## TABLE 5-10
## FLUORIDE MOUTHRINSE PROGRAM
## JANUARY-DECEMBER 1984

| School System | Children | Teachers | Total | Schools |
|---|---|---|---|---|
| **PHA I** | | | | |
| Colbert County | 346 | 15 | 361 | 2 |
| Cullman County | 2,000 | 78 | 2,078 | 8 |
| Franklin County | 620 | 22 | 642 | 4 |
| Jackson County | 2,089 | 84 | 2,173 | 6 |
| Lauderdale County | 1,657 | 82 | 1,739 | 6 |
| Madison County | 2,035 | 78 | 2,113 | 6 |
| Marion County | 2,010 | 102 | 2,112 | 6 |
| Winston County | 946 | 21 | 967 | 2 |
| TOTAL | 11,703 | 482 | 12,185 | 40 |
| **PHA II** | | | | |
| West Alabama District Health Department (Bibb, Greene, Lamar, Pickens & Tuscaloosa counties), Fayette & Hale Counties | 14,031 | 221 | 14,252 | 35 |
| TOTAL | 14,031 | 221 | 14,252 | 35 |
| **PHA III** | | | | |
| Blount County | 737 | 22 | 759 | 7 |
| Stanton Christian (Chilton County) | 42 | 4 | 46 | 1 |
| Shelby County | 2,201 | 115 | 2,316 | 7 |
| Carbon Hill City (Walker County) | 407 | 16 | 423 | 1 |
| TOTAL | 3,387 | 157 | 3,544 | 16 |
| Jefferson County | 1,000 | | 1,000 | 3 |
| **PHA IV** | | | | |
| Calhoun County | 2,444 | 90 | 2,534 | 7 |
| Piedmont City | 818 | 23 | 841 | 2 |
| Chambers County | 477 | 17 | 494 | 2 |
| Clay County | 1,634 | 73 | 1,707 | 6 |
| Coosa County | 1,300 | 45 | 1,345 | 6 |
| DeKalb County | 563 | 6 | 569 | 3 |
| Etowah County | 2,561 | 100 | 2,661 | 5 |
| Randolph County | 60 | 6 | 66 | 1 |
| Talladega County | 4,984 | 159 | 5,143 | 17 |
| Tallapoosa County | 502 | 24 | 526 | 2 |
| TOTAL | 15,343 | 543 | 15,886 | 51 |

## TABLE 5-10 (continued)
## FLUORIDE MOUTHRINSE PROGRAM
## JANUARY-DECEMBER 1984

| School System | Children | Teachers | Total | Schools |
|---|---|---|---|---|
| **PHA V** | | | | |
| Autauga County | 1,041 | 40 | 1,081 | 3 |
| Barbour County | 1,480 | 66 | 1,546 | 5 |
| Bullock County | 1,520 | 46 | 1,566 | 3 |
| Butler County | 1,777 | 85 | 1,862 | 4 |
| Coffee County | 969 | 40 | 1,009 | 5 |
| Ozark Christian | 125 | 6 | 131 | 1 |
| Covington County | 1,195 | 26 | 1,221 | 4 |
| Andalusia City | 1,445 | 56 | 1,501 | 3 |
| Florala City | 275 | 11 | 286 | 1 |
| Opp City | 1,068 | 39 | 1,107 | 2 |
| Crenshaw County | 667 | 30 | 697 | 2 |
| Dale County | 1,867 | 67 | 1,934 | 5 |
| Geneva City (Geneva County) | 680 | 40 | 720 | 1 |
| Henry County | 700 | 42 | 742 | 1 |
| Houston County | 2,491 | 118 | 2,609 | 7 |
| Lee County | 650 | 40 | 690 | 2 |
| Lowndes County | 1,620 | 36 | 1,656 | 6 |
| Lowndes Academy | 210 | 6 | 216 | 1 |
| Macon County | 230 | 16 | 246 | 1 |
| Pike County | 280 | 2 | 282 | 1 |
| Russell County | 1,300 | 26 | 1,326 | 5 |
| Hurtsboro School Foundation | 35 | 3 | 38 | 1 |
| TOTAL | 21,625 | 841 | 22,466 | 64 |
| **PHA VI** | | | | |
| Baldwin County | 2,360 | 89 | 2,449 | 10 |
| Choctaw County | 1,800 | 0 | 1,800 | 5 |
| Thomasville City (Clarke County) | 815 | 35 | 850 | 1 |
| Conecuh County | 1,709 | 65 | 1,774 | 7 |
| Dallas County | 2,462 | 61 | 2,523 | 8 |
| Brewton City (Escambia County) | 569 | 16 | 585 | 1 |
| Monroe County | 1,525 | 75 | 1,600 | 5 |
| Perry County | 1,109 | 39 | 1,148 | 4 |
| Marion City | 490 | 6 | 496 | 1 |
| Berean Baptist Head Start | 95 | 10 | 105 | 1 |
| Washington County | 1,936 | 68 | 2,004 | 7 |
| TOTAL | 14,870 | 464 | 15,334 | 50 |
| Mobile County | 16,724 | 500 | 17,224 | 33 |
| TOTALS | 98,683 | 3,206 | 101,891 | 292 |

# Environmental and Facility Standards Administration

# ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION

The Environmental and Facility Standards Administration consists of four bureaus; General Sanitation, Inspection, Radiological Health, and Licensure and Certification. An additional responsibility of the administration is the licensing of hearing aid dealers.

A summary of the activities of each of the bureaus within the administration during 1984 follows.

**Hearing Aid Dealers Licensure**—A license is required in Alabama to select, fit and sell hearing aids. The licensure law, which became effective October 1, 1971, requires dealers to demonstrate they are qualified before they can be licensed. Examinations for the purpose of licensure are held twice yearly during the months of January and July. Table 6-1 gives a five year summary of hearing aid licensing activity.

TABLE 6-1
HEARING AID LICENSURE
1980-1984

| Calendar Year | Regular License Issued or Renewed | Temporary Permits Issued or Renewed | Passed Examination | Failed Examination |
|---|---|---|---|---|
| 1980 | 98 | 27 | 15 | 4 |
| 1981 | 106 | 55 | 15 | 11 |
| 1982 | 111 | 44 | 11 | 9 |
| 1983 | 115 | 73 | 15 | 8 |
| 1984 | 109 | 74 | 22 | 10 |

The hearing aid dealers licensure law provides for the establishment of a Board of Hearing Aid Dealers. Members of the board are appointed by the governor from a list of qualified persons nominated by the Alabama Hearing Aid Dealers Association, Incorporated. The board consists of five hearing aid dealers, one otolaryngologist and one audiologist. A member must be a resident of the state of Alabama, have no less than three years of experience, and hold a valid license as a hearing aid dealer as provided under the act.

## BUREAU OF GENERAL SANITATION

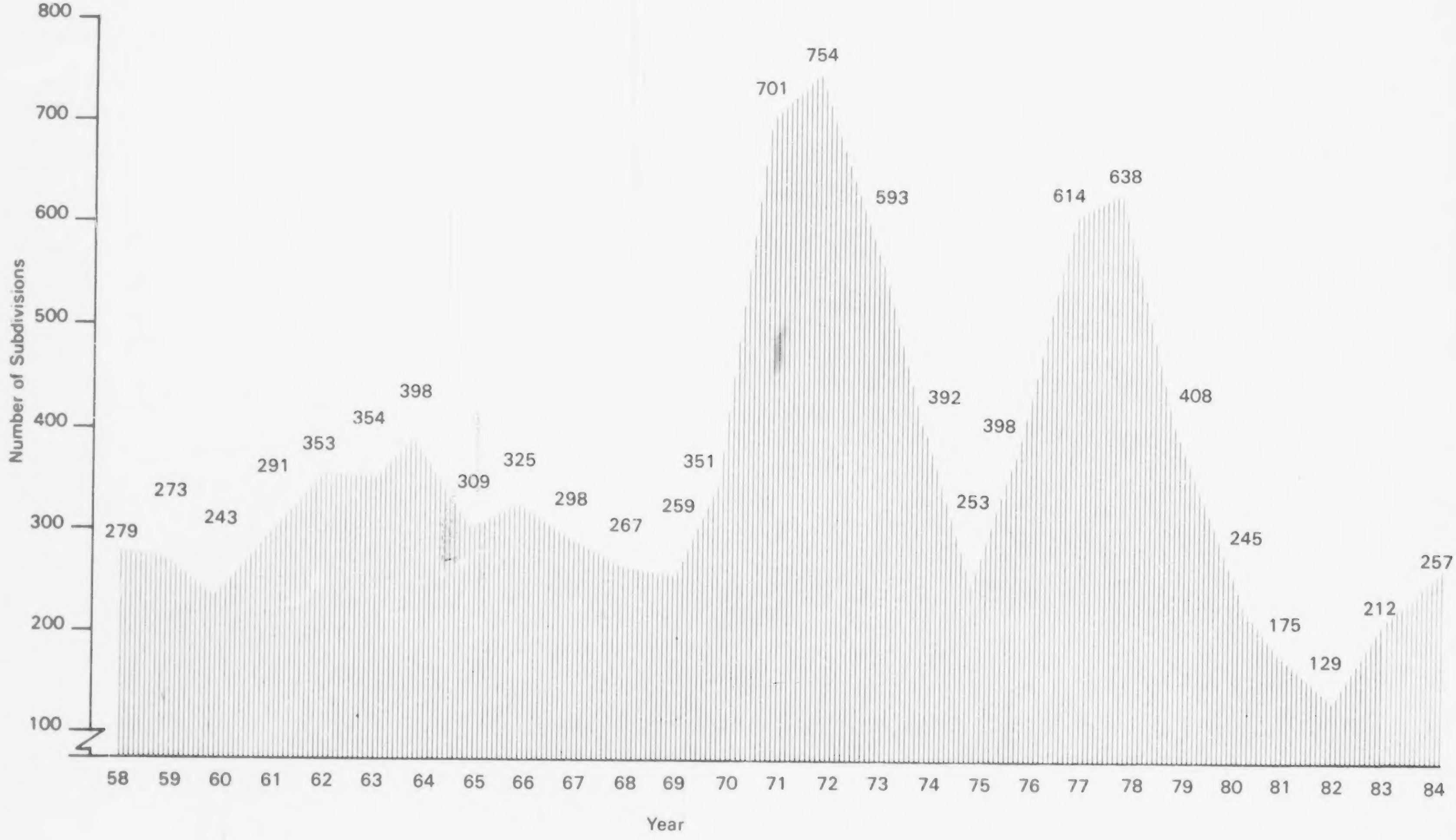
### Division of Waste Disposal

The Division of Waste Disposal is responsible for on-site sewage disposal in Alabama. The division operates in cooperation with local health departments to ensure compliance with the State Board of Health rules covering on-site sewage disposal. Due to overlapping responsibilities with the Alabama Department of Environmental Management, the division maintains a close working relationship with that agency to promote the protection of the public's health.

The division provided training for 11 new environmentalists at the two basic environmental training courses held in Montgomery. Additional training on subdivision review and approval was provided for Public Health Area IV personnel. Throughout the year division personnel provided on-the-job training in site evaluation for on-site sewage disposal systems to local environmentalists, surveyors, soil classifiers and engineers.

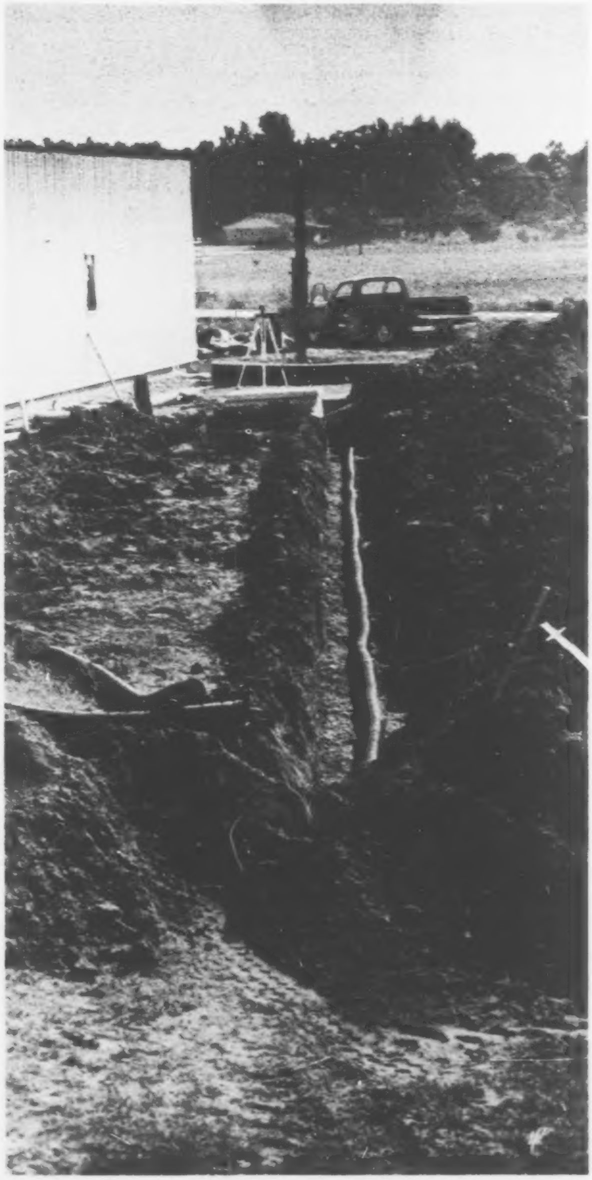
The 1980 census records show that approximately 47 percent of the housing units in the state utilize on-site sewage treatment and disposal methods (those not served by public sewers). This translates to more than 1.8 million Alabamians who are directly affected by on-site sewage disposal.

## GRAPH 6-1
## SUBDIVISION APPROVALS
## 1958-1984



**Subdivision Review Program**—The division's staff reviewed and approved 133 preliminary and 257 final subdivison submittals in 1984 for a total of 390 separate reviews. Graph 6-1 shows the subdivision approval trends since 1958 while Table 6-2 gives 1984 subdivision approvals by public health areas and counties.

Public Health Area IV, consisting of 11 counties, acquired primary enforcement responsibility for subdivisions on October 1, 1984. Public Health Area IV, Shelby County and the West Alabama Health District Health Department bring the total number of county health departments approving subdivisions to 17. The Jefferson County Department of Health also has subdivision approval authority.



## TABLE 6-2
## APPROVED SUBDIVISION PLANS
## 1984

| County | Preliminary | Final |
|---|---|---|
| **PHA I** | | |
| Colbert | 0 | 1 |
| Cullman | 0 | 4 |
| Franklin | 2 | 0 |
| Jackson | 0 | 1 |
| Lauderdale | 1 | 0 |
| Lawrence | 0 | 0 |
| Limestone | 1 | 3 |
| Madison | 13 | 25 |
| Marion | 2 | 2 |
| Marshall | 2 | 2 |
| Morgan | 2 | 3 |
| Winston | 1 | 1 |
| TOTAL | 24 | 42 |
| **PHA II** | | |
| Bibb | 0 | 0 |
| Fayette | 2 | 2 |
| Greene | 0 | 0 |
| Hale | 1 | 0 |
| Lamar | 0 | 0 |
| Pickens | 1 | 1 |
| Tuscaloosa | 9 | 25 |
| TOTAL | 13 | 28 |
| **PHA III** | | |
| Blount | 0 | 0 |
| Chilton | 0 | 0 |
| Jefferson | 21 | 23 |
| St. Clair | 0 | 0 |
| Shelby | 10 | 19 |
| Walker | 0 | 4 |
| TOTAL | 31 | 46 |
| **PHA IV** | | |
| Calhoun | 8 | 30 |
| Chambers | 1 | 1 |
| Cherokee | 0 | 1 |
| Clay | 1 | 1 |
| Cleburne | 1 | 1 |
| Coosa | 1 | 0 |
| DeKalb | 1 | 2 |
| Etowah | 3 | 2 |
| Randolph | 1 | 4 |
| Talladega | 1 | 2 |
| Tallapoosa | 1 | 2 |
| TOTAL | 19 | 46 |

### TABLE 6-2 (continued)
### APPROVED SUBDIVISION PLANS
### 1984

| County | Preliminary | Final |
|---|---|---|
| **PHA V** | | |
| Autauga | 2 | 4 |
| Barbour | 0 | 1 |
| Bullock | 0 | 0 |
| Butler | 0 | 0 |
| Coffee | 2 | 4 |
| Covington | 2 | 4 |
| Crenshaw | 0 | 0 |
| Dale | 5 | 14 |
| Elmore | 4 | 7 |
| Geneva | 0 | 1 |
| Henry | 2 | 0 |
| Houston | 0 | 0 |
| Lee | 2 | 2 |
| Lowndes | 0 | 1 |
| Macon | 0 | 0 |
| Montgomery | 0 | 0 |
| Pike | 0 | 4 |
| Russell | 1 | 3 |
| TOTAL | 20 | 45 |
| **PHA VI** | | |
| Baldwin | 10 | 16 |
| Choctaw | 0 | 0 |
| Clarke | 1 | 0 |
| Conecuh | 1 | 0 |
| Dallas | 2 | 0 |
| Escambia | 0 | 0 |
| Marengo | 0 | 0 |
| Mobile | 10 | 35 |
| Monroe | 0 | 0 |
| Perry | 0 | 0 |
| Sumter | 2 | 0 |
| Washington | 0 | 0 |
| Wilcox | 0 | 0 |
| TOTAL | 26 | 51 |
| GRAND TOTAL | 133 | 258 |

The division audited the Shelby County and the West Alabama Health District subdivision programs in 1984. Primary enforcement rules require audits. The main areas covered by the subdivision audit are records on subdivision reports, complaints, approved subdivisions, enforcement actions and on-site field evaluations of approved subdivisions. Except for minor deficiencies both audits showed substantial compliance with subdivision primary enforcement requirements.

**Septic Tank Manufacturers**—Fourteen new approvals were issued to manufacturers of septic tanks in accordance with the On-Site Sewage Disposal Systems rules. The septic tank manufacturers were inspected jointly by the local environmentalist and the division's area personnel. Statewide, 64 manufacturers are approved for construction of various size precast septic tanks. Table 6-3 lists the number of manufacturers by area.

**Alternative On-Site Sewage Disposal Systems**—During 1984 local health departments assumed the lead in reviewing on-site aerobic treatment plants as specified in Rule 420-3-1-.12 On-Site Sewage Disposal Systems. The division reviewed 43 proposals for alternative on-site sewage disposal systems statewide.

A new alternative sewage disposal system manufactured by Advance Drainage System was approved for limited use in certain counties. The system known as SB2 is a large diameter plastic pipe wrapped with a special fiber. This system is unique in that it does not require stone around or under the distribution laterals as in conventional gravity effluent disposal lines. In areas of the state where stone is expensive, the SB2 system may provide a less expensive alternative to conventional gravity disposal lines while providing a sanitary means of wastewater disposal. Systems approved under the trial program will be monitored closely for proper functioning. The counties participating in the SB2 system program are Baldwin, Colbert, Franklin, Houston, Lauderdale, Mobile and Shelby.

### TABLE 6-3
### APPROVED SEPTIC TANK MANUFACTURERS
### 1984

| Area | Number of Manufacturers |
|---|---|
| Public Health Area I | 14 |
| Public Health Area II | 0 |
| Public Health Area III | 1* |
| Public Health Area IV | 17 |
| Public Health Area V | 20 |
| Public Health Area VI | 12 |

*Does not include Jefferson County

**School Sanitation Program**—Final plans for 68 school projects were approved in 1984. Joint plan reviews and inspections are performed with local health departments in order to evaluate the adequate functioning of existing on-site sewage disposal systems and the design of new on-site sewage disposal. The division cooperates with the Bureau of Inspection and the Department of Environmental

Management in securing their approval for facets of a project over which they have rules or jurisdiction before issuing final comments and project approval to the State Building Commission.

Plans for three new schools were approved in 1984. Ten schools were connected to new sewage treatment facilities in order to eliminate failing on-site systems or to eliminate positive discharges of sewage to waters of the state. These include five schools connected to new sewage treatment plants, one school to a new lagoon, one school to an existing lagoon and three schools to public sewers. Four schools had new on-site sewage systems installed in order to eliminate sewage from school grounds. Marginal septic tank and grease trap systems were upgraded at three schools. Remedial on-site corrections were completed at two schools in order to allow school boards to plan long-term permanent solutions to their sewage disposal problems. These systems are being monitored by local and state personnel.

The School Sanitation Program reviewed 225 sets of plans in 1984. These included 34 schematic, 71 preliminary, and 120 sets of final and revised final plans. Table 6-4 lists the number of school projects by county.

**Other Projects**—Approvals were issued for five armories, three recreational areas, one public building, one motel and two miscellaneous projects. Compost toilets were approved for three remote military firing range sites.

Thirty-four sets of plans were carried over into 1985. Twenty-two of these were schematic and preliminary plans that were awaiting final submission by the project architects. Twelve sets of final plans were held pending review by other agencies or submission of additional or required information by the project architect or engineer.

**School Survey**—The limited school survey started in 1983 continued in 1984. Alabama has 1,349 county and city public schools. Public sewers serve 869 schools, 70 are on treatment plants, 74 are on lagoons, and 336 (25 percent of the total) have on-site sewage disposal systems.

Findings of the statewide school survey in 1974 showed 57 percent or 289 of the on-site systems to be unsatisfactory or failing. In 1983, 33 schools or 10 percent of the on-site schools had failing sewage systems. Timely and positive actions by local boards of education assisted by the local health departments and the School Sanitation Program staff reduced the number of failures to 30 (9 percent) by the summer of 1984. By the beginning of the 1984-85 school term there were 22 (7 percent) failing schools. At the end of 1984, 19 public schools were failing for a failure rate of 6 percent. Graph 6-2 gives the percentage of schools with failing septic tank systems.

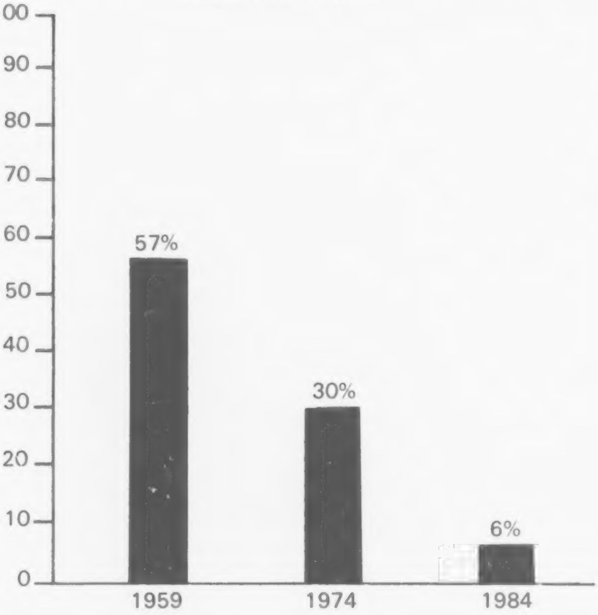
### TABLE 6-4
### SCHOOL PROJECTS
### 1984

| County | Approved |
|---|---|
| **PHA I** | |
| Colbert | 1 |
| Cullman | 4 |
| Franklin | 0 |
| Jackson | 3 |
| Lauderdale | 2 |
| Lawrence | 1 |
| Limestone | 3 |
| Madison | 2 |
| Marion | 3 |
| Marshall | 1 |
| Morgan | 0 |
| Winston | 0 |
| TOTAL | 20 |
| **PHA II** | |
| Bibb | 2 |
| Fayette | 0 |
| Greene | 0 |
| Hale | 0 |
| Lamar | 2 |
| Pickens | 1 |
| Tuscaloosa | 0 |
| TOTAL | 5 |
| **PHA III** | |
| Blount | 0 |
| Chilton | 1 |
| Jefferson | 4 |
| St. Clair | 1 |
| Shelby | 0 |
| Walker | 2 |
| TOTAL | 8 |

## TABLE 6-4 (continued)
## SCHOOL PROJECTS
## 1984

| County | Approved |
|---|---|
| **PHA IV** | |
| Calhoun | 4 |
| Chambers | 1 |
| Cherokee | 0 |
| Clay | 0 |
| Cleburne | 0 |
| Coosa | 1 |
| DeKalb | 1 |
| Etowah | 3 |
| Randolph | 0 |
| Talladega | 0 |
| Tallapoosa | 1 |
| TOTAL | 11 |
| **PHA V** | |
| Autauga | 1 |
| Barbour | 2 |
| Bullock | 0 |
| Butler | 0 |
| Coffee | 1 |
| Covington | 3 |
| Crenshaw | 0 |
| Dale | 1 |
| Elmore | 0 |
| Geneva | 0 |
| Henry | 1 |
| Houston | 2 |
| Lee | 2 |
| Lowndes | 0 |
| Macon | 4 |
| Montgomery | 5 |
| Pike | 2 |
| Russell | 0 |
| TOTAL | 24 |
| **PHA VI** | |
| Baldwin | 1 |
| Choctaw | 0 |
| Clarke | 0 |
| Conecuh | 2 |
| Dallas | 0 |
| Escambia | 0 |
| Marengo | 1 |
| Mobile | 2 |
| Monroe | 1 |
| Perry | 0 |
| Sumter | 0 |
| Washington | 3 |
| Wilcox | 0 |
| TOTAL | 10 |
| GRAND TOTAL | 78 |

## GRAPH 6-2
## ALABAMA PUBLIC SCHOOLS
## FAILING ON-SITE SEWAGE DISPOSAL SYSTEMS
## SELECTED YEARS



It is estimated that at least 100 additional school sites may be classified as marginal for on-site sewage disposal systems. Due to a lack of maintenance, poor soil conditions and use above design levels, further failures can be expected. These sites will be inspected as staffing permits.

## Division of Vector Control

During the year the Divisions of Vector Control broadened the surveillance program for vector-borne diseases and provided training, consultation and equipment to county health departments to assist them in coping with disease vector problems.

Past annual vector control conferences have generated a great deal of interest not only in the professional health sector but in the private and governmental sectors as well. The program for the 1984 conference included many noteworthy speakers and attracted a large attendance. Co-sponsors of the conference included the Alabama Department of Public Health, the Alabama Department of Agriculture and Industries, the Alabama Cooperative Extension Service, Auburn University and the Alabama Environmental Health Association.

The division supplied technical expertise and equipment to Autauga, Baldwin, Chambers, Coffee, Colbert, Dallas, Etowah, Franklin and Jackson counties to solve mosquito problems during the year. Aerosurf MSF, a new mosquito larvicide, was tested for effectiveness at a poultry processing plant waste lagoon in Etowah County with marginal success.

Large bird roosts continued to present a health hazard to many Alabama residents. Those roosts considered to be at least 2 years old and large enough to be a menace to public health were eliminated for the season by a cooperative effort between the Alabama Department of Public Health and many local agencies. These agencies included the cities of Prattville, Muscle Shoals, Athens, Lexington, Florence, Roanoke and Brundidge; the county health departments in Tuscaloosa, Randolph and Morgan counties; and Calhoun State Jr. College.

Fly problems continued to plague agribusiness communities statewide. Synerid, a red xanthene dye for fly control, was used on an experimental basis in high-rise caged layer hen houses in Marshall, Cullman, Madison and Baldwin counties. Control of the fly problem with Synerid at these locations was successful only after the rate of application and the frequency of use were doubled above labeled rates. The product was found to be labor intensive and phototoxic to the applicator.

The department's request for Section 18 Emergency Use for Cryomazine (Larva-dex ®) for a feed additive in caged poultry operations was denied by the U.S. Environmental Protection Agency. The reason given by the EPA was that the metabolite melamine was proven to be tetragenic in laboratory rabbits.

The division surveyed two commensural rate complaints received from Talladega and Russell counties. Urban rat control programs were operated effectively during the year in Houston, Madison and Mobile counties.

During the year the division investigated pigeon problems in Gadsden and Florence and recommended a trapping program to control the populations of the birds in both cities.

In late fall of the year, the division surveyed the residence of a Tuscaloosa County woman whose autopsy revealed that she had died of Rocky Mountain Spotted Fever, a tick-borne disease. The tick *(Dermacentor variabalis)* known to carry the disease was not found at the site although all of the conditions necessary for its proliferation were present in one of the two suspect areas. This location in Tuscaloosa County will receive further attention by the division during 1985.

The division dealt with three major bat problems in Lowndes, Baldwin and Marshall counties. Recommendations were made for removing the little brown bat *(Myotis lucifiuis)* at each of the three locations.

**Training**—In addition to planning the annual vector control conference the division participated in two training programs for new environmentalists and presented a program on avian arbovirus surveillance during five Alabama Environmental Health Association chapter meetings. During the year, division personnel attended a week-long tick course, the "Bio-rational Mosquito Control Conference," and toured the Orleans Parish Mosquito Abatement Program in Louisiana.

**Avian Arbovirus Surveillance**—During 1984 efforts in the avian arbovirus surveillance program were concentrated in the larger population centers distributed along the major river basins. Sampling was also conducted near tourist attractions such as the dog race track in Macon County where infected mosquitoes could pose a risk factor to attendees. Although 1:40 titers were observed in some juvenile birds in mid-July, anthropod-borne encephalitis in the avian population did not amplify. The peak of St. Louis encephalitis activity occurred in August when 12 sero-reactors were noted in juvenile English sparrows.

Of the 917 bird serum collected by the division and participating local health departments from May through October, there were 29 reactors to the various arboviruses screened by the Clinical Laboratory of the Alabama Department of Public Health. Since the laboratory performed the hemaglutination inhibition (HI) test, juvenile birds were preferred over adult birds to relate the arbovirus activity noted to the 1984 mosquito season. Table 6-5 gives a breakdown of the number of samples taken of various types of birds during the study.

### TABLE 6-5
### AVIAN SERO SAMPLES
### 1984

| Number Samples | Type Bird | Percent of Total |
|---|---|---|
| 762 | English Sparrows | 83.1 |
| 92 | Pigeons (Feral) | 10.0 |
| 16 | Brown Cowbirds | 1.7 |
| 14 | Grackles | 1.5 |
| 11 | Starlings | 1.2 |
| 9 | Cardinals | 1.0 |
| 13 | Others (Bluejays, Robins, Mockingbirds) | 1.5 |
| Total-917 | | 100.0 |

**Indoor Air Quality Program**—Although the Indoor Air Quality Program does not have any regulatory authority provided by state law, it performs several services for the residents of Alabama. Its primary program at this point is the survey of public school buildings and county health departments for asbestos contained in certain building materials. The program also provides consultation, limited sampling and identification services to those individuals or agencies complaining of health related problems with exposure to elevated levels of formaldehyde and other indoor air pollutants.

The program began 1984 with one employee working on a contract with Safe State, a program associated with the University of Alabama and responsible for surveying public schools for asbestos. In February an arrangement was made with Safe State for the department to survey all of the state's junior colleges for asbestos. Under this arrangement 38 post-secondary institutions were surveyed.

During 1984 the program's employee attended four conferences or training courses. During this time equipment for air sampling and formaldehyde detection was purchased along with microscopes for examination of asbestos fiber content in samples. A training course on indoor air quality was also provided to new health department environmentalists during the year.

In August the department program applied to the Centers for Disease Control for a grant for development of an indoor air quality program under the Capacity Building Program in Occupational Safety and Health. Notification regarding whether the grant was awarded will be received in the spring of 1985. The program also applied for state funding for the establishment of an asbestos program.

The program participated in the Environmental Protection Agency's Bulk Asbestos Identification Quality Assurance program during the year. This program attempts to determine the proficiency of individuals doing microscopic examinations for asbestos content on a nationwide basis. After three rounds of test identification, the program maintained a 100 percent rate of accuracy in the EPA program. At least 125 samples were collected and analyzed during the year by the program.

In December arrangements were made with Safe State to take over the program for providing final certification for asbestos removal in public schools. An agreement was signed by Safe State and the Alabama Department of Public Health for the use of two of Safe State's employees to supplement the Indoor Air Quality Program's personnel. This arrangement is valid until April 1985.

During the year three public buildings (not state owned), four state buildings, 34 county health departments and nine homes were surveyed for asbestos. In addition nine complaints regarding asbestos abatement were investigated.

The program also surveyed or investigated the following for other indoor air quality pollutants such as formaldehyde: three building surveys; five requests for assistance, information or consultation; and three complaints.

## BUREAU OF INSPECTION

### Division of Food

Revised rules for food sanitation were adopted by the State Board of Health and became effective May 1, 1984. The adopted rules, by title, are "Rules for Food Service Sanitation," "Rules for Retail Food Store Sanitation" and "Rules for Food Processing Establishment Sanitation."

Each of the three sets of rules was fashioned after model food sanitation rules recommended by the U.S. Food and Drug Administration.

Fifty environmentalists from throughout the state attended the Food and Drug Administration training course "Institutional Sanitary Food Service," presented in Birmingham May 7-11, 1984. The last day of this training course was devoted to a discussion of the revised food sanitation rules adopted by the State Board of Health.

A two day food sanitation workshop, conducted by representatives of the U.S. Food and Drug Administration, was held in each of the six public health areas in June and July. Requirements of the revised food sanitation rules were explained to local environmentalists at each of the six workshops.

Food and Drug Administration certified food evaluation officers within the Division of Food made the required field inspections necessary to standardize 200 local food environmentalists. Local environmentalists, upon successful completion of the requirements for standardization, were instructed in the proper procedure for standardizing other local health department food inspection personnel.

Division personnel conducted a one day seminar in each of the six public health areas to assist area personnel in better enforcement of food sanitation rules. Suggested methods and procedures for correcting critical items of sanitation in food establishments were presented along with specific forms for use in recording the improvements made.

Food surveys and evaluations of county food sanitation programs were made in 39 counties. All surveys and evaluations were made by FDA certified state evaluation officers within the Division of Food. Survey recommendations emphasized corrective measures for program weaknesses. Particular attention was given to the accuracy of reporting by local food inspection personnel. Numerous surveys found inaccurate reporting of food establishment ratings.

Fifteen food manager training courses were conducted by Division of Food personnel. In addition to training food managers at these courses, local environmentalists were provided the opportunity to become familiar with the course contents and to personally teach the course periodically throughout the year. Information is provided by county in Table 6-6.

One environmentalist within the Division of Food was certified by the Food and Drug Administration as a food survey and evaluation officer. Five other environmentalists were recertified by the FDA as food survey and evaluation officers. In maintaining this certification, division survey and evaluation officers were able to assist local food program personnel in the proper interpretation and application of all food sanitation rules. Written interpretations received from the FDA were forwarded by the division to the environmental health coordinators in all public health areas.

Thirty-five food recalls were received from the Food and

## TABLE 6-6
## FOOD SANITATION ANNUAL REPORT
## 1984

| | Food Survey Score | Retail Food Store Survey Score | School Survey Score | No. Food Manager Courses | No. Environmentalists Standardized | Spot Checks |
|---|---|---|---|---|---|---|
| **PHA I** | | | | | | |
| Colbert | | | | | 1 | |
| Cullman | 80 | | | | | |
| Franklin | | | | | | |
| Jackson | 79 | | | | 1 | |
| Lauderdale | | | | | | |
| Lawrence | 80 | | | | | |
| Limestone | 80 | | | | | |
| Madison | | | | 1 | | |
| Marion | 77 | | | | 1 | |
| Marshall | 76 | | | | 1 | 1 |
| Morgan | | | | | 1 | |
| Winston | 81 | | | 1 | 1 | |
| **PHA II** | | | | | | |
| Bibb | 66 | 66 | | | | |
| Fayette | 87 | | | | 1 | |
| Greene | 64 | 57 | | | | |
| Hale | | | | | | |
| Lamar | 86 | | | | | |
| Pickens | | | | | | |
| Tuscaloosa | 65 | | | 1 | 1 | |
| **PHA III** | | | | | | |
| Blount | 76 | | | | | |
| Chilton | 58 | | | | | 1 |
| Jefferson | | | | | | |
| St. Clair | | | | | | |
| Shelby | 65 | | | | | |
| Walker | | | | | 1 | |
| **PHA IV** | | | | | | |
| Calhoun | 81 | | | | 1 | |
| Chambers | 72 | | | | | |
| Cherokee | | | | 1 | | |
| Clay | 80 | | | | | |
| Cleburne | 76 | | | | | |
| Coosa | 73 | | | | | |
| DeKalb | | | | 1 | | |
| Etowah | 73 | | | 1 | 1 | |
| Randolph | | | | 1 | 1 | |
| Talladega | | | | 1 | 1 | |
| Tallapoosa | | | | 1 | 1 | |

## TABLE 6-6 (continued)
## FOOD SANITATION ANNUAL REPORT
## 1984

| | Food Survey Score | Retail Food Store Survey Score | School Survey Score | No. Food Manager Courses | No. Environmentalists Standardized | Spot Checks |
|---|---|---|---|---|---|---|
| **PHA V** | | | | | | |
| Autauga | 72 | 74 | 84 | | | |
| Barbour | 65 | | | | | |
| Bullock | 67 | | | | | |
| Butler | | | | | 1 | |
| Coffee | 79 | | | | | |
| Covington | 66 | | | | | |
| Crenshaw | | | | | | |
| Dale | 77 | | | | | |
| Elmore | 78 | | | 1 | | |
| Geneva | | | | | | |
| Henry | 65 | | | 1 | | |
| Houston | 79 | | | | 1 | |
| Lee | 67 | | | | | |
| Lowndes | 73 | | | | | |
| Macon | | | | | | |
| Montgomery | | | | | | |
| Pike | 72 | | | | 1 | |
| Russell | 66 | | | | | |
| **PHA VI** | | | | | | |
| Baldwin | | | 76 | | 1 | |
| Choctaw | | | | 1 | | |
| Clarke | | | | 1 | | |
| Conecuh | 77 | | | | | |
| Dallas | | | | | | |
| Escambia | | | | 1 | | |
| Marengo | | | | | | |
| Mobile | 60 | | | 1 | 1 | |
| Monroe | 77 | | | | | |
| Perry | | | | | | |
| Sumter | 67 | 64 | | | | |
| Washington | | | | | | |
| Wilcox | 61 | 62 | | | 1 | |

Drug Administration, and each recall announcement was immediately forwarded to all local health departments.

A contract with the State Department of Education was made to inspect summer feeding facilities during the months of June, July and August. One thousand one hundred thirty-two inspections were made at the summer feeding sites for which local health departments received $33,960.

The state health officer signed another contract with the U.S. Food and Drug Administration to inspect food manufacturing firms engaged in interstate commerce. Bureau of Inspection personnel were designated to make these inspections and forward reports to FDA. Under this contract, 260 inspections were made and 26 food samples were collected and analyzed by the Clinical Laboaratory Administration.

A comparative bacteriological study of the sanitization effectiveness of warewashing methods was conducted by the Division of Food personnel between October 18 and 31, 1984. Following the FDA's outlined procedure, swab tests were collected from utensils washed and sanitized in two-compartment sinks, three-compartment sinks and dish machines in 17 Alabama counties.

The sample results from dish machines yielded lower standard plate counts than did the samples from either two-compartment sinks or three-compartment sinks. Analysis of collected data indicated that there was no statistically significant difference at the 95 percent confidence level between the plate counts from utensils of two-compartment sinks and three-compartment sinks. This study indicates that requirements for sink utensil washing be reevaluated.

**Retail Frozen Dessert**—In 1984 there were 1,327 retail frozen dessert establishments in Alabama. The state laboratories collected and analyzed 11,376 samples during the year. The average compliance for bacterial standards was 72.1 percent.

Two instructional courses on the cleaning and operation of retail frozen dessert freezers were conducted by the Division of Food personnel.

Data in this report is for the period January through July 1984. Compliance levels by public health areas are reflected in Table 6-7. At the end of this period, new laboratory forms were prepared and a new computer program format was designed and initiated to collect and report data by public health areas. As a result of this change, the data for the remainder of the year were not readily available.

**Seafood Program**—During 1984 seven orders affecting the status of oyster growing areas in Mobile Bay were issued by the state health officer. All of these orders were based upon fecal coliform counts exceeding the standards. Dauphin Island Bay and other less important commercial growing areas were most affected by the closing orders due to low level contamination.

During early 1985, the Technical Services Branch of the Food and Drug Administration and the Bureau of Inspection will perform dye studies in Dauphin Island Bay to aid in determining its future classification for oyster harvesting. The major producing area in Alabama continues to be the Cedar Point reef with no commercial production occurring on the Eastern shore.

During the year, major flooding of the river systems was less than in recent years. This lack of larger volumes of fresh water in Mobile Bay resulted in a better than average growing water quality. All conditionally approved areas were open at the end of 1984. One hundred fifty-six bay water samples were collected during the year to assure compliance with health standards.

The local production of oysters in 1984 continued at a high level resulting in more locally produced oysters being used by Alabama processors. However, Alabama oyster shops continue to receive a large volume of oysters from Louisiana and, to a lesser extent, Texas. From all sources, 123 samples of shell stock were collected, with 82 percent of the samples meeting the standards. This represents a considerable improvement over the 65 percent to 70 percent compliance of shell stock standards in previous years.

Permits for oyster processors are issued on an annual basis. At the close of 1984, 41 oyster shops held valid permits. Six new oyster shops began operation during the year. These oyster shops were normally inspected on a bimonthly basis. Water samples were collected from the individual supply systems during the inspection visit and analyzed at the Mobile Branch Laboratory.

At the end of 1984, 25 health permits had been issued to Alabama crab meat picking plants. During the year, two new shops began operation. Most processors are small, family-type plants operating only during the peak season. About 10 of the major plants operated year-round. A recent and significant change in crab meat picking personnel has resulted from the influx of Cambodians, Laotians and Vietnamese. Communication continues to be a hindrance in instructing these Asian people in the appreciation of sound sanitation practices. As with the oyster shops, the crab meat plants were normally inspected once every two months, and the water samples were collected during the inspection and analyzed by the Mobile Branch Laboratory.

## TABLE 6-7
## RETAIL FROZEN DESSERT COMPLIANCE
## 1984

| | Total Samples | Samples High | Percent in Violation | Percent Compliance | Area | Percent | Compliance |
|---|---|---|---|---|---|---|---|
| | | | | | 1982 | 1983 | 1984 |
| **PHA I** | | | | | 79.0 | 78.4 | 78.0 |
| Colbert | 139 | 25 | 17.9 | 82.1 | | | |
| Cullman | 183 | 36 | 19.6 | 80.4 | | | |
| Franklin | 82 | 27 | 32.9 | 67.1 | | | |
| Jackson | 172 | 48 | 29.9 | 72.1 | | | |
| Lauderdale | 256 | 59 | 23.0 | 77.0 | | | |
| Lawrence | 55 | 8 | 14.5 | 85.5 | | | |
| Limestone | 134 | 21 | 15.6 | 84.4 | | | |
| Madison | 866 | 168 | 19.3 | 80.7 | | | |
| Marion | 132 | 27 | 20.4 | 79.6 | | | |
| Marshall | 200 | 66 | 33.0 | 67.0 | | | |
| Morgan | 319 | 80 | 25.0 | 75.0 | | | |
| Winston | 36 | 2 | 5.5 | 94.5 | | | |
| **PHA II** | | | | | 77.8 | 74.1 | 76.0 |
| Bibb | | | | | | | |
| Fayette | 60 | 12 | 20.0 | 80.0 | | | |
| Greene | | | | | | | |
| Hale | 10 | 0 | 0 | 100.0 | | | |
| Lamar | | | | | | | |
| Pickens | | | | | | | |
| Tuscaloosa | 658 | 166 | 25.2 | 74.8 | | | |
| **PHA III** | | | | | 76.3 | 74.6 | 72.0 |
| Blount | 69 | 22 | 31.8 | 68.2 | | | |
| Chilton | 13 | 7 | 53.8 | 46.2 | | | |
| Jefferson | 1,675 | 454 | 27.1 | 72.9 | | | |
| St. Clair | 87 | 32 | 36.7 | 63.3 | | | |
| Shelby | 193 | 74 | 38.3 | 61.7 | | | |
| Walker | 167 | 37 | 22.1 | 77.9 | | | |
| **PHA IV** | | | | | 70.0 | 71.5 | 71.0 |
| Calhoun | 508 | 157 | 30.9 | 69.1 | | | |
| Chambers | 103 | 29 | 28.1 | 71.9 | | | |
| Cherokee | 69 | 19 | 27.5 | 72.5 | | | |
| Clay | 9 | 1 | 11.0 | 88.9 | | | |
| Cleburne | 42 | 9 | 21.4 | 78.6 | | | |
| Coosa | 7 | 1 | 14.2 | 85.8 | | | |
| DeKalb | 154 | 40 | 25.9 | 74.1 | | | |
| Etowah | 415 | 116 | 27.9 | 72.1 | | | |
| Randolph | 37 | 11 | 29.7 | 70.3 | | | |
| Talladega | 167 | 51 | 30.5 | 69.5 | | | |
| Tallapoosa | 122 | 47 | 38.5 | 61.5 | | | |

TABLE 6-7 (continued)
RETAIL FROZEN DESSERT COMPLIANCE
1984

| | Total Samples | Samples High | Percent in Violation | Percent Compliance | Area | Percent | Compliance |
|---|---|---|---|---|---|---|---|
| | | | | | 1982 | 1983 | 1984 |
| **PHA V** | | | | | 69.2 | 73.2 | 72.0 |
| Autauga | 66 | 13 | 20.0 | 80.0 | | | |
| Barbour | 64 | 18 | 28.1 | 71.9 | | | |
| Bullock | 25 | 13 | 52.0 | 48.0 | | | |
| Butler | 85 | 35 | 41.1 | 58.9 | | | |
| Coffee | 114 | 14 | 12.2 | 87.8 | | | |
| Covington | 151 | 46 | 30.4 | 69.6 | | | |
| Crenshaw | 20 | 7 | 35.0 | 65.0 | | | |
| Dale | 101 | 30 | 29.7 | 70.3 | | | |
| Elmore | 93 | 32 | 34.4 | 65.6 | | | |
| Geneva | 64 | 17 | 26.5 | 73.5 | | | |
| Henry | 27 | 20 | 74.0 | 26.0 | | | |
| Houston | 474 | 136 | 28.6 | 71.4 | | | |
| Lee | 373 | 122 | 32.7 | 67.3 | | | |
| Lowndes | 0 | 0 | 0 | 0 | | | |
| Macon | 29 | 13 | 44.8 | 55.2 | | | |
| Montgomery | 848 | 205 | 24.1 | 75.9 | | | |
| Pike | 73 | 20 | 27.3 | 72.7 | | | |
| Russell | 112 | 34 | 30.3 | 69.7 | | | |
| **PHA VI** | | | | | 60.6 | 60.6 | 63.4 |
| Baldwin | 205 | 62 | 30.2 | 69.8 | | | |
| Choctaw | 6 | 2 | 33.3 | 66.7 | | | |
| Clarke | 163 | 40 | 24.5 | 75.5 | | | |
| Conecuh | 42 | 15 | 35.7 | 64.3 | | | |
| Dallas | 115 | 25 | 21.7 | 78.3 | | | |
| Escambia | 119 | 35 | 29.4 | 70.6 | | | |
| Marengo | 42 | 11 | 26.1 | 73.9 | | | |
| Mobile | 688 | 316 | 45.9 | 54.1 | | | |
| Monroe | 31 | 10 | 32.2 | 67.8 | | | |
| Perry | 32 | 7 | 21.8 | 78.2 | | | |
| Sumter | 27 | 10 | 37.0 | 63.0 | | | |
| Washington | 44 | 20 | 45.4 | 54.6 | | | |
| Wilcox | 5 | 3 | 60.0 | 40.0 | | | |

## Division of Milk

At the end of fiscal year 1984 there were 417 producer dairies, 24 milk and frozen dessert plants, and four single service container plants located in Alabama. Eighty-six permits were issued to out-of-state processing plants. Permits were also issued to 76 bulk milk haulers and 57 bulk milk tankers.

Personnel of the division made 2,739 inspections of dairy farms, 253 inspections of milk and frozen dessert plants, 41 inspections of single service container plants, 191 inspections of delivery vehicles, 74 inspections of bulk milk haulers and 89 inspections of tank trucks.

Plans were reviewed for 31 new or remodeled barns and six milk and frozen dessert plants, also equipment changes were reviewed at 11 dairies and three plants.

Mastitis checks were conducted on five herds representing 263 cows using the California Mastitis Test Kit. Fifty-six individual quarter samples from cows were collected and submitted to the State Diagnostic Laboratory for identification of organisms and sensitivity.

There were 3,900 samples of raw milk collected at the farm. Of these samples 373 exceeded the limit for the Wisconsin Mastitis Test, 92 exceeded the Direct Microscopic Cell Count Standards; 264 exceeded the Standard Plate Count criteria; and a total of 353 of the samples exceeded the established standards. Compliance increased from 90.8 to 91.0 percent.

One hundred ten of 978 commingled raw milk samples exceeded established standards for bacteria count. The percent compliance for commingled raw milk samples was 88.8 percent.

Results of laboratory examination for 4,587 pasteurized milk, milk product and frozen dessert samples collected show that 298 violated coliform standards; 140 had unacceptable bacteria counts; and the percent compliance increased from 93.2 percent to 93.5 percent for coliform and from 91 percent to 96.8 percent for standard plate count.

Twenty-seven official notices were issued at farms for sanitation violations. Seventy notices were issued for standard plate count violations and 13 for somatic cell count violations, resulting in 16 permit suspensions for standard plate count and 13 for somatic cell counts. Permits at 10 dairies were suspended due to adulteration of the product with water and at seven dairies for adulteration with growth inhibitor. Six tank trucks of milk were condemned due to adulteration with growth inhibitors and one truck was condemned due to temperature violations.

Twenty-eight notices were issued to milk processors for coliform violations and 17 for standard plate count violations, resulting in five suspensions of milk and milk products. Two plants had products adulterated with growth inhibitors resulting in product recall. One plant was issued an official notice and 513 gallons of pasteurized products were condemned due to temperature violations. Two official notices were issued to plants for adulteration of product with water, three for labeling violations and two plants were ordered to recall products containing FD&C yellow #5 not properly labeled on container.

Sampling and inspection totals included in this report are representative of Jefferson and Mobile counties as well as the Division of Milk. Enforcement totals are representative of the Division of Milk alone.

Two dairies experienced problems with Heptachlor Epoxide contamination during 1984. An investigation by this department along with milk and feed sample results indicated that the source was probably contaminated feed. One hundred twenty-six milk samples were analyzed for Heptachlor Epoxide from these two dairies during a five month period. Samples of milk from 34 other producers were collected and analyzed to ensure that no other supplies of milk were contaminated. As a result 387,422 pounds of milk valued at $55,014 were discarded.

## Division of Lodging

The lodging sanitation program includes the Hotel-Motel program, Detention Facility program and the Camp Sanitation program.

The numbers as indicated in this report differ somewhat from those calculated in the Program Performance Report, because this report considers inspectional frequencies in compliance with rules and policies and not merely the total number of inspections conducted.

**Hotel-Motel Program**—The county health departments are responsible for routine inspection activities for hotels and motels. The minimum inspectional frequency has been established by regulation on a biannual basis. Other health department activities include enforcement and compliance efforts including permit issuance and plan review for new or remodeled hotels.

The Alabama Department of Public Health is responsible for providing training for county health department personnel and for assisting with enforcement activities when necessary. Permits are issued jointly.

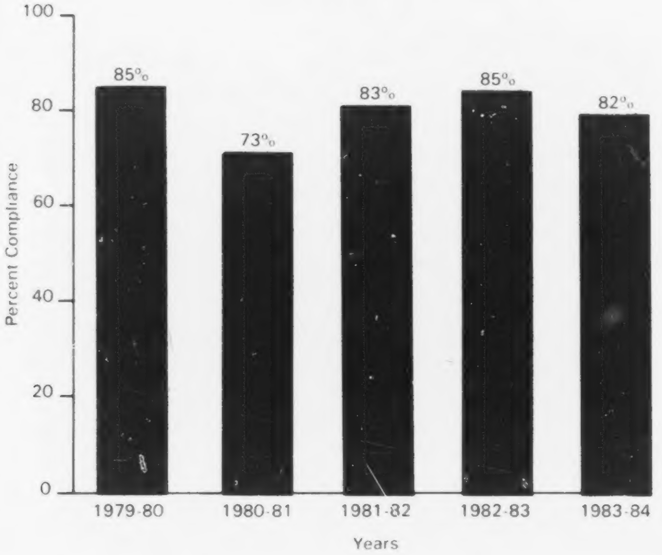
During 1983-84, 531 hotels and motels were operating in Alabama, and 1,300 inspections were conducted. These inspections represented 82 percent of those required by regulation. Graph 6-3 shows the inspection frequency and permitting compliance in accordance with the hotel-motel rules.

An amendment to Alabama's hotel-motel rules disallowing the acceptability of ductless ventilators in newly constructed or remodeled hotels-motels has been sent to the Legislative Reference Service in accordance with the provisions of the Administrative Procedure Act. It is expected that this amendment will be considered by the State Committee of Public Health in early 1985.

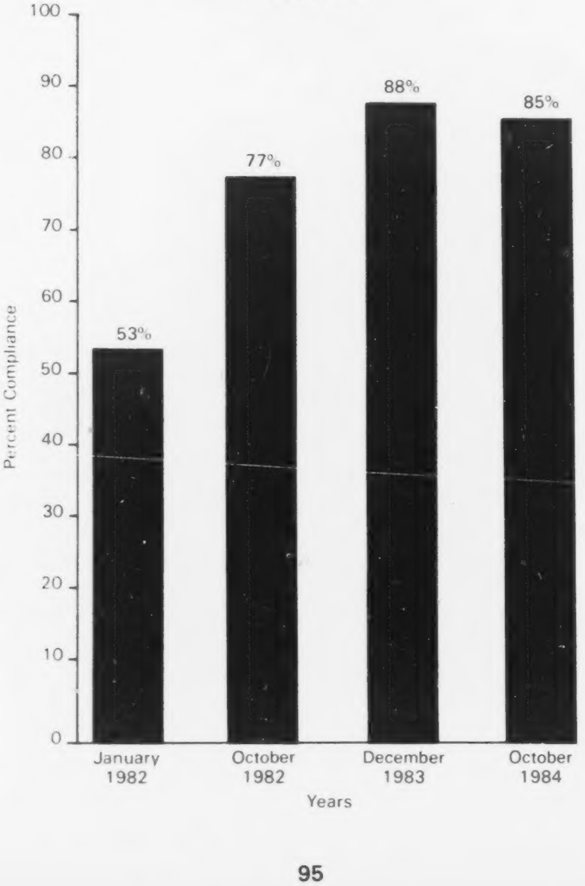
**Detention Facilities Program**—The Bureau of Inspection acts in an advisory capacity to the Alabama Board of Corrections and to the local health departments in the jail and prison inspectional programs. There are currently 358 county and municipal jails operating within the state. During 1984, local health department environmentalists conducted 746 inspections at these establishments. This number represents 71 percent of the required quarterly inspections.

There are currently 11 major prisons, 14 work release units, 1 food storage warehouse and 1 food processing plant operated under the State Board of Corrections. Two hundred sixty-six inspections were conducted at these 27 facilities during fiscal year 1984. A sanitary food survey conducted by a Bureau of Inspection, Food and Drug Administration certified survey officer in October 1984, indicates that these facilities have an average compliance score of 85. Graph 6-4 shows the trend of food service

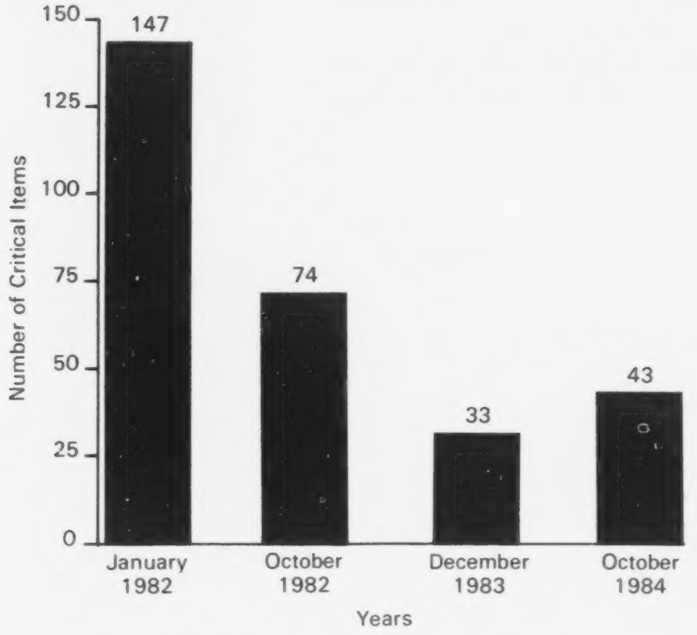
## GRAPH 6-3
## PERCENTAGE OF INSPECTION AND PERMITTING COMPLIANCE WITH HOTEL AND MOTEL RULES
## 1979-1984



## GRAPH 6-4
## SANITATION LEVELS FOR PRISON FOOD SERVICE FACILITIES
## 1982-1984



### GRAPH 6-5
### NUMBER OF CRITICAL ITEMS IN VIOLATION PRISON FOOD SERVICE FACILITIES 1982-1984



sanitation levels during recent years as shown by the surveys. Graph 6-5 depicts the number of critical sanitation items found to be in violation during these same surveys.

During the year, six food sanitation training courses were provided for the prison system with a total of 113 food workers and supervisors attending.

The Limestone Correctional Center, located in Limestone County, is expected to open on March 15, 1985, and the Bullock Correctional Facility is scheduled to open in December of 1985. The increase in the number and size of correctional facilities over the past few years has increased the workload of the Bureau of Inspection with no concurrent increase in staffing levels.

**Camp Sanitation Program**—Approximately 100 residential camps operate within the state. During 1984 the counties within Public Health Area IV, under the leadership of the assistant state health officer, adopted rules establishing standards for camp sanitation. According to Area IV environmental personnel, there have been no significant problems associated with regulatory activities of camps during the past year.

## BUREAU OF RADIOLOGICAL HEALTH

The Bureau of Radiological Health regulates all sources of ionizing radiation except reactors. In addition the bureau maintains in coordination with other state agencies an emergency response capability unique for ionizing radiation.

### Division of Radioactive Materials Licensing

As of December 31, 1984, the bureau had 435 active specific licenses to use radioactive materials. Table 6-8 lists the licensees by type. During 1984, 317 amendments to licenses were issued. In addition, 29 new licenses were issued. This was the first full year for charging a fee for radioactive material licenses.

### TABLE 6-8
### RADIOACTIVE MATERIALS LICENSES
### 1984

| | |
|---|---|
| Medical | 132 |
| Academic | 32 |
| Industrial | 211 |
| Civil Defense | 2 |
| State | 13 |
| Other | 45 |
| TOTAL | 435 |

## Division of Radioactive Materials Compliance

The bureau conducted inspections of 78 of these licenses in 1984. Several incidents involving suspected radioactive materials misuse were reported to the bureau during the year.

## Division of X-Ray Compliance

Table 6-9 gives the total inventory of X-ray equipment in Alabama, excluding Jefferson County which conducts its own X-ray program. Table 6-10 gives the X-ray inspection data for the same units. Nineteen percent of the facilities were overdue for inspection. This compares to 26.9 percent at the beginning of 1984.

**TABLE 6-9**
**REGISTERED X-RAY MACHINES**
**1984**

| | |
|---|---|
| Dental | 1,888 |
| Physicians and Clinics | 762 |
| Hospitals | 835 |
| Chiropractic | 201 |
| Veterinarians | 150 |
| Podiatrists | 18 |
| Industrial | 101 |
| TOTAL | 3,955 |

**TABLE 6-10**
**X-RAY MACHINES INSPECTED**
**1984**

| | |
|---|---|
| Dental | 619 |
| Physicians and Clinics | 296 |
| Hospitals | 128 |
| Chiropractic | 92 |
| Veterinarians | 69 |
| Podiatrists | 7 |
| Industrial | 3 |
| TOTAL | 1,214 |

## Division of Emergency Planning

During 1984 a major commitment of bureau time was to revise, update and exercise the State Radiation Emergency Plan to meet revised federal criteria. This included exercises at the Browns Ferry Nuclear Plant and the J. M. Farley Nuclear Plant. As a result of the new criteria, continued major purchases of equipment were acquired in 1984. The State Emergency Plan for Farley has been approved by the Federal Emergency Management Agency, but the same plan still has not been approved for Browns Ferry. The bureau has not been informed of any deficiencies since the plan was forwarded to the Federal Emergency Management Agency in August 1982.

# BUREAU OF LICENSURE AND CERTIFICATION

The Bureau of Licensure and Certification continued in calendar year 1984 to function as the single state agency responsible for certification of health care providers for participation in the Medicare and Medicaid programs. Additional responsibilities included the administration of the State Licensure Program, Civil Rights Program and the Drug Imprint Program.

Highlights of activities for divisions within the Bureau of Licensure and Certification follow.

## Certification Division

Health care facilities, agencies and individuals must be certified as meeting the conditions of participation to be reimbursed through the federal Medicare program or the state administered Medicaid program.

For purposes of Medicare certification, the Bureau of Licensure and Certification has an agreement with the Secretary, Department of Health and Human Services; and for Medicaid certification, the Alabama Medicaid Agency, to survey and certify that providers are in compliance with Medicare and Medicaid regulations. In addition, the bureau contracts with the Alabama Medicaid Agency to survey and approve health care providers for Civil Rights compliance.

Through the survey process, the division applies federal laws and regulations passed by Congress to determine certification status and eligibility for participation. If applicable, local and state requirements such as compliance with certificate of need and licensure regulations are used to determine compliance during certification visits.

Since 1980 Congress and the Department of Health and Human Services have been very active in assessing alternatives to institutional care such as home health agency care, ambulatory surgical facilities, hospices and contracts with health maintenance organizations. These activities, along with promotion of traditional outpatient services, have been aimed at curtailing the spiraling costs in the Medicare/Medicaid programs. They have also increased the use of outpatient services such as home health services.

In the latter part of 1983 and in 1984 the first viable cost containment program, prospective payment, was initiated by the Department of Health and Human Services in the Medicare program. Prospective payment, a method of payment of predetermined charges for diagnosis-related groupings rather than on a cost plus basis, appears to have resulted in shorter lengths of stays in hospitals, thus increasing the need for alternative methods of care. Accordingly, six new home health agencies have been established and most existing ones have expanded. Three new hospices and nine ambulatory surgery centers were certified.

Different techniques of determining and promoting appropriateness and quality of care have been studied and tried since the advent of the Medicare and Medicaid programs in 1965. In 1984, the implementation of some of these techniques was begun on a nationwide basis. The use of these new techniques has and will continue to require extensive staff and health care personnel training.

Table 6-11 gives the number of health care providers which participated in each program in calendar year 1984. With few exceptions, providers participate in both programs. Intermediate Care Facilities (ICF) are eligible only for Medicaid certification. In a few instances, providers elect only to participate in one program.

TABLE 6-11
MEDICARE/MEDICAID PARTICIPANTS
CALENDAR YEAR 1984

| Provider | Medicare | Medicaid |
|---|---|---|
| Hospitals | 139 | 134 |
| Skilled Nursing Homes | 195 | 190 |
| Skilled Nursing Homes with ICF Certification | | 190 |
| Intermediate Care Facilities (ICF) | | 19 |
| Intermediate Care Facilities for the Mentally Retarded (ICF/MR) | | 7 |
| Home Health Agencies | 112 | 92 |
| Independent Laboratories | 68 | 68 |
| Rural Health Clinics | 8 | |
| Renal Dialysis Facilities | 26 | |
| Rehabilitation Centers | 8 | |
| Independent Physical Therapists | 31 | |
| Portable X-ray | 2 | |
| Ambulatory Surgical Centers | 10 | |
| Chiropractors | 322 | |
| Hospice | 3 | |

During 1984, there were 42 changes of ownership occurring in health care facilities which required a considerable amount of effort and coordination between the Certification Division and the health care facilities involved.

## Field Services Division

The Field Services Division had an exciting, productive period in calendar year 1984. In an effort to strengthen the quality of certification surveys and state licensure inspections, the division employed additional health care professionals. Included among these new professionals were three registered nurses, one registered pharmacist, two institutional nutritional consultants and one medical social worker. These additional employees provided the division with the ability to improve the quality of survey and inspection results, and also to provide facilities with consultative services and guidance in meeting certification and licensure standards.

During 1984 there was a major change in certification procedures dealing with substandard skilled nursing facilities. Special consultative and follow-up visits were conducted at 20 skilled nursing facilities which were included in this category. Through these intensified efforts, several of these facilities were upgraded to provide a higher degree of services to the geriatric population.

The year 1984 saw the emergence of a relatively new health care provider—ambulatory surgical centers. The division provided guidance to individuals throughout the state who expressed interest in this program. These facilities provide the public with a time-saving and cost-effective method of completing minor surgical procedures. The results of inspections reflect a high quality of care rendered and a favorable acceptance of the centers by the general public.

Emphasis in 1984 was also placed on upgrading the professional status of staff through attendance at Department of Health and Human Services training sessions and conferences. A total of 27 division employees attended the following training sessions: "Methodology for Detection of Medication Errors," "Training Coordinators Conference," "Management Training Conference," "Patient Care and Services Tool" and "Prospective Payment System."

In an effort to enhance education services to long-term care facilities, 10 educational seminars were provided statewide which gave long-term care staff new insight on the provision of patient activities in the nursing home setting. The success of these seminars was reflected by the number of participants and the percentage of nursing homes represented.

Also during 1984, 327 Civil Rights reviews were conducted. These reviews were conducted in hospitals, nursing homes and related facilities. Staff assisted providers in maintaining and meeting Civil Rights requirements in accordance with applicable laws. Nursing homes for 1984 reflected a 0.4 percent increase in multiracial occupancy. Furthermore, the reviews demonstrated a decrease in the number of white only facilities in the state.

Table 6-12 reflects the total number and category of visits conducted at health care facilities during calendar year 1984.

### TABLE 6-12
### FIELD SERVICE ACTIVITIES
### 1984

| Facility Classification | Licensure Inspections | Certification Surveys | Follow-Up Visits | Title VI Surveys | Consultation Visits | Complaint Investigations |
|---|---|---|---|---|---|---|
| Hospitals | 37 | 130 | 20 | 108 | 4 | 8 |
| Nursing Homes | 250 | 236 | 230 | 176 | 132 | 220 |
| Cerebral Palsy Treatment Centers | 2 | 0 | 0 | 0 | 0 | 0 |
| Health Maintenance Organizations | 5 | 0 | 0 | 0 | 0 | 0 |
| Independent Clinical Laboratories | 97 | 119 | 24 | 0 | 3 | 1 |
| Maternity Homes | 3 | 0 | 0 | 0 | 0 | 0 |
| Rehabilitation Centers | 13 | 9 | 11 | 0 | 0 | 0 |
| End Stage Renal Dialysis Facilities | 30 | 47 | 12 | 0 | 0 | 3 |
| Home Health Agencies | 0 | 137 | 34 | 41 | 6 | 3 |
| Independent Physical Therapists | 0 | 0 | 0 | 0 | 0 | 0 |
| Rural Health Clinics | 0 | 13 | 3 | 0 | 0 | 0 |
| Intermediate Care Facilities/ Mental Retardation | 0 | 7 | 7 | 0 | 0 | 0 |
| Abortion Clinics | 9 | 0 | 0 | 0 | 0 | 2 |
| Clinical Laboratories Improvement Act Laboratories | 0 | 4 | 0 | 0 | 0 | 0 |
| Ambulatory Surgical Centers | 10 | 10 | 5 | 0 | 0 | 0 |
| Hospices | 0 | 3 | 0 | 0 | 0 | 0 |
| TOTALS | 456 | 715 | 346 | 325 | 145 | 237 |

## Licensure Division

Licensure activities continued during calendar year 1984 with inspections being made at each health care facility subject to licensure inspection. Recommendations for types of licenses to be issued were submitted to the Licensure Advisory Board for review and approval before forwarding to the State Board of Health for final approval. Health care facilities are licensed on an annual calendar year basis.

For calendar year 1984, the State Board of Health in approval action sanctioned the issuance of 5 probational licenses, 133 temporary licenses and 453 regular licenses to facilities.

A probational license is issued to a facility which does not comply with the State Board of Health's requirements, only after it is determined that the health and safety of the patients is not endangered. A temporary license is issued to a facility that is temporarily in noncompliance but has an approved plan to achieve compliance, and only after it is determined that the health and safety of the patients is not endangered. Also, a temporary license may be issued to a new facility until such time that a history of compliance is established.

In calendar year 1984, initial licensing applications were processed and appropriate initial licenses issued for the following facilities: 1 nursing home, 6 ambulatory surgical treatment centers, 39 domiciliaries, 2 end stage renal dialysis treatment centers, 12 laboratories, 4 health maintenance organizations and 1 maternity home.

In addition to new applications processed, 43 facilities had name changes, 156 facilities had change of administrators, 8 facilities closed, 48 facilities changed ownership and 71 licenses were reissued due to the increases or decreases in bed capacity, address changes and status changes.

The problem of unlicensed health care facilities continues to be an issue of concern in Alabama. To help alleviate this problem, a revision to the existing domiciliary care facilities rules was completed effective August 25, 1983. These rules make licensure more feasible for small group, noninstitutional domiciliaries and, therefore, broaden the scope of alternative care availability.

In order to accommodate and manage the anticipated growth of the "small group" classification of domiciliaries, significant organizational changes were made. In April 1984, domiciliary program activities were separated from the bureau's Field Services Division. Consequently, the below listed information reflects activity of this program from April 1984 through December 1984. The number of licensed small group domiciliaries grew from 34 to 66 which represents a 94 percent increase. Licensed beds in these facilities totaled 515 with an average bed capacity of eight beds per facility. In addition, the following activities occurred.

| | |
|---|---|
| Licensure Inspections | 101 |
| Complaint Investigations | 44 |
| Investigation of Unlicensed Facilities | 26 |
| Consultation Visits | 39 |

Further activities included the revocation of one facility license, downgrading two facilities from temporary to probational licenses and the development of administrative procedures to further enhance program activities.

Efforts are now under way to revise the existing licensure rules for nursing homes that were adopted and promulgated by the State Board of Health effective October 20, 1967. It is hoped this revision will be completed by spring of 1985 for presentation to the Licensure Advisory Board and State Board of Health.

Table 6-13 gives the type and number of facilities including beds, where applicable, licensed in calendar year 1984.

**TABLE 6-13**
**HEALTH CARE FACILITIES LICENSED**
**CALENDAR YEAR 1984**

| Type of Facility | Number of Facilities | Number of Beds |
|---|---|---|
| Hospitals | 137 | 21,151 |
| Nursing Homes | 221 | 21,776 |
| Ambulatory Surgical Treatment Centers | 6 | |
| Independent Clinical Laboratories | 92 | |
| Cerebral Palsy Treatment Centers | 2 | 99 |
| End Stage Renal Disease Treatment Centers | 20 | |
| Rehabilitation Centers | 9 | 100 |
| Health Maintenance Organizations | 5 | |
| Maternity Homes | 3 | 56 |
| Domiciliaries | 74 | 1,332 |
| Abortion Centers | 9 | |

## Plans and Construction Division

To ensure safe, functional and efficient health facilities, the Plans and Construction Division reviews plans and inspects buildings that house licensed health facilities.

The division enforces the building regulations which the State Board of Health have established as a part of the licensing requirements for hospitals, nursing homes, end stage renal dialysis centers, rehabilitation centers, health maintenance organizations, abortion clinics, ambulatory surgical treatment facilities and domiciliaries. These standards prescribe necessary functional elements, establish minimum requirements for the patient environment and require that construction meet specified building, fire and safety codes.

A condition for participation in Medicare and Medicaid is that hospitals and nursing homes maintain their buildings in compliance with the Life Safety Code of the National Fire Protection Association. The division makes annual inspections, reviews plans, consults and performs necessary follow-up work to enforce this program at all hospitals (except those accredited by the Joint Commission) and nursing homes in the Medicare-Medicaid programs. Division staff performing these tasks act in their role of assistant state fire marshalls.

Staff training, fire drills, evacuation plans, fire control procedures, disaster plans and smoking regulations are incorporated in fire safety consultation and education programs.

Architectural and engineering services are extended to the State Health Planning Agency. These services include:

1. Review schematic plans submitted with Certificates of Need applications.
2. Review plans for federally funded projects which are not licensed by the Bureau of Licensure and Certification as well as make inspections during construction.
3. Make inspections of facilities to evaluate size of each department or adequacy of facility.
4. Make on-site visits to determine bed capacity.
5. Review plans for all health facility construction.
6. Make on-site visits of buildings to determine if they can be used as domiciliary care facilities.

Federally aided health projects, including those given grants and loan guarantees, are also reviewed and inspected by this office. The federal agencies include the Department of Health and Human Services, the Department of Housing and Urban Development, the Appalachian Regional Commission and the Farmers Home Administration.

The health care industry has become so complex with continual innovations in equipment and services that buildings must be more flexible and expandable. Long-range planning is already saving millions of dollars both in construction and increased efficiency of personnel. The division architect and construction specialists work with every health facility involved in construction and their architects and engineers to ensure that buildings are designed and built to be as functional as possible and to respond to the needs of the future.

The time frame of these projects can vary from six months of planning and six months of construction to several years of planning and three or four years of construction where renovations and new construction is phased. Most projects are in planning and construction for at least two years. Table 6-14 shows the number of projects which had planning begun in calendar year 1984 based on the date that the project number was issued.

### TABLE 6-14
### PROJECTS WITH PLANNING INITIATED IN 1984

| | Projects | New Beds | Replacement Beds | ESRD Stations |
|---|---|---|---|---|
| Hospitals | 34 | 641 | 187 | |
| Nursing Homes | 20 | 86 | 34 | |
| End Stage Renal Disease Centers | 4 | | | 28 |
| Domiciliaries, Institutional | 8 | 741 | | |
| Domiciliaries, Small Group | 15 | 189 | | |
| Ambulatory Surgery Centers | 16 | | | |
| Rehabilitation Centers | 3 | | | |

Those figures do not include projects which were for equipment only
The cost of these projects exceeds $100,000,000

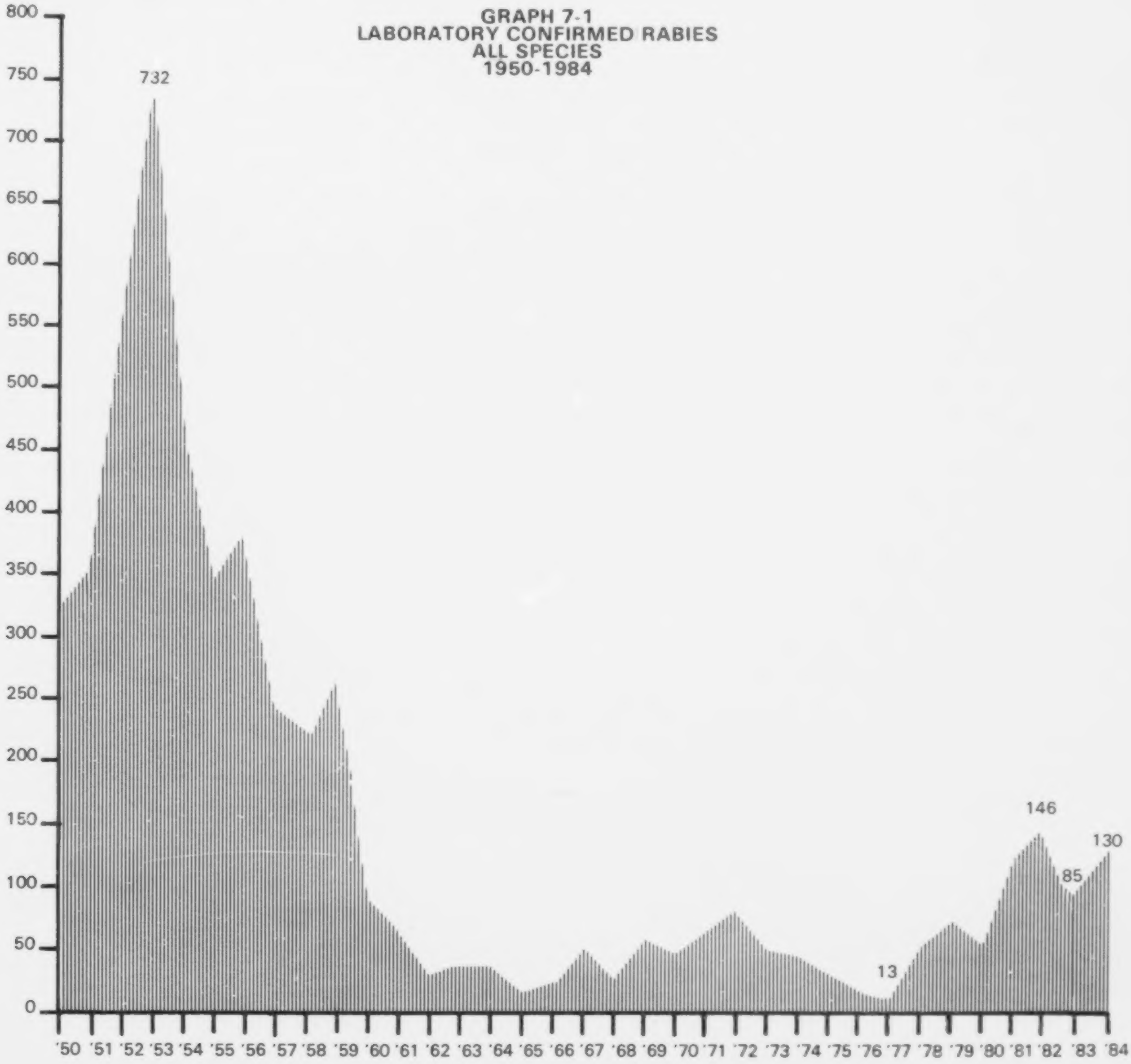
# Bureau of Epidemiology and Consultation

# BUREAU OF EPIDEMIOLOGY AND CONSULTATION

Epidemiology, Disease Registries, and Toxic Substances and Zoonotic Diseases are the divisions which comprise the Bureau of Epidemiology and Consultation. In addition to providing professional and technical assistance, the bureau serves as epidemiology liaison with local health departments and other agencies. These services are available continuously.

Requests for epidemiologic services have markedly and consistently increased during the past several years. During 1984 the bureau responded to 3,543 requests for consultation (2,474 from the six public health areas and 1,069 from other agencies). A total of 28,682 notifiable disease reports was received during this period.

Action by the State Committee of Public Health during 1983 added Acquired Immune Deficiency Syndrome (AIDS) and Kawasaki Syndrome to the list of notifiable diseases in Alabama. For the first full year of reporting six cases of AIDS and nine cases of Kawasaki Syndrome were recorded. Another change in recording bacterial meningitis now permits separation of those cases caused by *Haemophilus influenzae*. A total of 120 H. flu meningitis cases was confirmed during 1984.



Two additional biologicals were added to the bureau's list of dispensed products: immune globulin and rabies immune globulin. These additions greatly improved and expedited shipments to local health departments and physicians for the prophylaxis of contacts to viral hepatitis and rabies. Totals of 2,373 vials of immune globulin and 136 vials of rabies immune globulin were dispensed during 1984.

The addition of serologic screening tests for viral hepatitis and intestinal parasite screening for Cryptosporidiosis cysts by the Clinical Laboratory Administration has greatly enhanced capabilities for initiation of control measures for these diseases that are routinely encountered in day care centers, correctional and mental health facilities, and other settings where large numbers of individuals congregate.

Assistance in controlling foodborne outbreaks involved restaurants, churches, ~~schools, nursing~~ homes, private parties and catered meals. Thirty-one outbreaks affecting 810 individuals were recorded. Follow-up investigations and ongoing monitoring for control measures were coordinated with ~~local~~ health departments.

Four types of vibrio species were identified as the infectious agents of waterborne/foodborne illness. *Vibrio parahemolyticus* in raw oysters infected three individuals, *Vibrio alginolyticus* and *Vibrio vulnificus* each infected one individual, and *Vibrio cholera* non-0$_1$ infected two individuals.

Giardiasis, a parasitic illness, was reported in persistently rising incidence. There were 1,277 cases documented in 1984, a 44 percent increase from 1983 and a 66 percent increase since 1982. A large percentage of these cases occurred in day care centers, which indicates a major problem area that has not been previously addressed. Enteric infections in these settings constitute an ongoing problem.

### TABLE 7-1
### SEASONAL OCCURRENCE OF DISEASES
### 1984

| Diseases | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amebiasis | | 2 | | 2 | 5 | | | | 2 | | | |
| Brucellosis | | | | | | | | 2 | | 2 | | |
| Campylobacter | 5 | 6 | 5 | 6 | 5 | 12 | 8 | 7 | 14 | 5 | 10 | 16 |
| Diphtheria | | | | | | | | | | | | |
| Encephalitis | 1 | 2 | 2 | 3 | 3 | 6 | | 4 | 2 | 1 | | 2 |
| Giardiasis | 33 | 35 | 51 | 51 | 59 | 124 | 152 | 128 | 243 | 121 | 145 | 135 |
| Gonorrhea | 1,495 | 1,965 | 1,816 | 1,981 | 1,743 | 1,862 | 2,018 | 2,117 | 2,238 | 2,175 | 1,983 | 1,983 |
| Hepatitis, A | 16 | 29 | 5 | 4 | 9 | 10 | 6 | 16 | 9 | 6 | 10 | 7 |
| Hepatitis, B | 34 | 42 | 46 | 40 | 39 | 29 | 47 | 37 | 40 | 34 | 40 | 36 |
| Hepatitis, Unspec. | 1 | 1 | 3 | 5 | 2 | 2 | 8 | 5 | 2 | 2 | 1 | 3 |
| Hep., Non A, Non B | 7 | 3 | 7 | 6 | 3 | 5 | 5 | 10 | 7 | 7 | 4 | 6 |
| Histoplasmosis | 9 | 8 | 7 | 6 | 7 | 4 | 8 | 3 | 10 | 3 | 8 | 8 |
| Legionellosis | 1 | | 1 | | 6 | 7 | | 2 | | 2 | | |
| Leptospirosis | | | | | | | | | | | 1 | |
| Malaria | | | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 |
| Measles | | | | | | | | | 3 | | | |
| Meningitis, Aseptic | 13 | 9 | 6 | 15 | 10 | 30 | 20 | 41 | 40 | 16 | 26 | 12 |
| Meningococcal Men. | 3 | 3 | 4 | 4 | 6 | 3 | 2 | | 4 | 6 | | 3 |
| Mumps | 2 | 1 | | 1 | | 1 | | 1 | | | | |
| Pertussis | | | | | | | | | 1 | | | 1 |
| Psittacosis | | | | | | | | | | | | |
| Poliomyelitis | | | | | | | | | | | | |
| Rabies in Animals | 5 | 4 | 8 | 7 | 6 | 12 | 4 | 22 | 12 | 18 | 12 | 20 |
| Reye Syndrome | 1 | 1 | 2 | 1 | | | | | | | | |
| Rocky Mt. Spotted Fev. | 1 | | 1 | | | 3 | 2 | 4 | 2 | 2 | | |
| Rubella | | | 1 | | | | 2 | | | | | |
| Salmonellosis | 31 | 27 | 21 | 11 | 28 | 47 | 49 | 54 | 73 | 50 | 42 | 44 |
| Shigellosis | 3 | 18 | 10 | 1 | 5 | 16 | 4 | 3 | 2 | 4 | | 10 |
| Smallpox | | | | | | | | | | | | |
| Syphilis | 85 | 132 | 112 | 93 | 128 | 88 | 93 | 144 | 122 | 126 | 147 | 112 |
| Tetanus | | | | | | | 1 | | | | | 1 |
| Tuberculosis | 48 | 46 | 70 | 39 | 44 | 49 | 38 | 44 | 68 | 49 | 31 | 39 |
| Tularemia | | | | | | | | | | | | |
| Typhoid Fever | | | | | | 1 | | | | 1 | | |
| Typhus, Murine | | | | | | | | | | | | |

## TABLE 7-2
## CASES OF COMMUNICABLE DISEASES
## 1974-1984

| Diseases | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Amebiasis | 4 | 1 | 4 | 1 | 5 | 2 | 7 | 4 | 4 | 5 | 11 |
| Brucellosis | 1 | 3 | 3 | 2 | 3 | 3 | 6 | 4 | 5 | 5 | 4 |
| Campylobacter |  |  |  |  |  |  | 24 | 61 | 56 | 109 | 99 |
| Diphtheria |  |  |  |  |  |  |  |  |  |  |  |
| Encephalitis | 9 | 78 | 87 | 12 | 16 | 28 | 12 | 23 | 18 | 25 | 26 |
| Giardiasis |  |  |  |  |  |  |  |  | 435 | 713 | 1,277 |
| Gonorrhea | 21,673 | 24,418 | 25,026 | 24,936 | 25,082 | 26,012 | 24,464 | 25,178 | 25,092 | 23,126 | 23,376 |
| Hepatitis, A | 323 | 304 | 218 | 212 | 224 | 267 | 237 | 155 | 128 | 183 | 127 |
| Hepatitis, B | 186 | 259 | 221 | 175 | 168 | 236 | 273 | 289 | 381 | 424 | 464 |
| Hepatitis, Unspec. | 42 | 43 | 35 | 74 | 57 | 120 | 138 | 78 | 57 | 49 | 35 |
| Hep., Non A, Non B |  |  |  |  |  |  |  | 32 | 63 | 76 | 70 |
| Histoplasmosis |  |  |  |  |  | 50 | 21 | 72 | 131 | 104 | 81 |
| Legionellosis |  |  |  | 13 | 13 | 10 | 10 | 7 | 9 | 5 | 19 |
| Leptospirosis |  | 4 | 2 | 5 | 1 | 2 | 1 | 1 | 2 | 2 | 1 |
| Malaria |  | 6 | 2 | 6 | 2 | 6 | 8 | 10 | 2 | 7 | 8 |
| Measles | 21 | 5 |  | 79 | 102 | 129 | 22 | 2 | 2 | 5 | 3 |
| Meningitis, Aseptic | 59 | 159 | 136 | 183 | 148 | 289 | 537 | 326 | 321 | 445 | 238 |
| Meningococcal Men. | 13 | 32 | 40 | 61 | 52 | 41 | 58 | 68 | 56 | 50 | 36 |
| Mumps | 618 | 454 | 368 | 400 | 437 | 28 | 36 | 19 | 10 | 2 | 6 |
| Pertussis | 20 | 46 | 6 | 4 | 3 | 4 | 3 |  | 5 | 5 | 2 |
| Psittacosis |  |  |  | 1 |  | 2 | 2 |  | 1 |  |  |
| Poliomyelitis | 1 |  |  |  |  |  |  |  |  |  |  |
| Rabies in Animals | 48 | 34 | 18 | 13 | 53 | 73 | 56 | 123 | 146 | 85 | 130 |
| Reye Syndrome | 3 | 3 | 3 | 2 | 5 | 7 | 10 | 14 | 10 | 5 | 5 |
| Rocky Mt. Spotted Fev. | 14 | 10 | 15 | 20 | 13 | 21 | 18 | 24 | 19 | 24 | 15 |
| Rubella | 66 | 23 | 2 | 110 | 25 | 44 | 3 | 1 |  | 1 | 3 |
| Salmonella | 328 | 329 | 382 | 425 | 486 | 474 | 534 | 603 | 543 | 737 | 477 |
| Shigellosis | 130 | 208 | 114 | 125 | 246 | 121 | 157 | 61 | 84 | 105 | 76 |
| Smallpox |  |  |  |  |  |  |  |  |  |  |  |
| Syphilis | 519 | 542 | 432 | 350 | 421 | 577 | 893 | 1,062 | 1,510 | 1,528 | 1,382 |
| Tetanus | 1 | 1 | 2 | 3 |  | 5 | 4 | 2 | 6 | 3 | 2 |
| Tuberculosis | 785 | 780 | 824 | 704 | 672 | 644 | 665 | 640 | 631 | 523 | 565 |
| Tularemia | 2 |  |  | 1 | 1 |  | 2 |  |  |  |  |
| Typhoid Fever | 4 | 3 | 1 | 1 | 3 | 8 | 4 | 5 | 10 | 2 | 2 |
| Typhus, Murine |  |  |  |  | 1 |  |  |  | 1 |  |  |

Rabies related epidemiology remains a major function as the rabies endemic areas in Alabama increase. One hundred thirty laboratory-confirmed cases of animal rabies were reported during 1984, resulting in 208 consultations with physicians and the distribution of 613 doses of Human Diploid Cell Rabies Vaccine for exposed individuals. In addition, emphasis on preexposure immunization of high-risk individuals resulted in orders for 196 doses of rabies vaccine plus 22 doses as boosters for those previously immunized. Jefferson County Department of Health also distributed 94 doses (66 postexposure and 28 preexposure). Consultations with physicians and hospitals on rabies exposures have resulted in a reduction in the use of these costly biologicals compared to previous years when this service was not available.

Educational seminars produced by the bureau numbered 25, during which 881 attendees received epidemiology training. Those in attendance included health department personnel, infection control practitioners, military and penal system personnel associated with communicable diseases, and interested groups of private citizens.

An increase in public awareness and the interest shown in toxic substances and the physical properties of possible exposures to potential or known carcinogens have resulted in an increase in the number of inquiries to this office. During 1984 this bureau responded to 46 requests for information on effects of toxic substances to human health.

The monthly publication *Communicable Disease Report* continues to provide current information and disease trends to health care agencies and other interested individuals. Included on a quarterly basis is a cumulative report on the prevalence of communicable diseases within each county of the state tabulated by the Division of Disease Registries.

# TABLE 7-3
# COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Amebiasis | | | Brucellosis | | | Campylobacter | | | Encephalitis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 1 | | 11 | 2 | 1 | 4 | 64 | 11 | 99 | 24 | 2 | 26 |
| PHA I | Colbert | | | | | | | 1 | | 1 | 1 | | 1 |
| | Cullman | | | | | | | | | | 1 | | 1 |
| | Franklin | | | | | | | 2 | | 3 | 2 | | 2 |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | 1 | | 1 | 2 | | 3 | | | |
| | Lawrence | | | | | | | | | | 2 | | 2 |
| | Limestone | | | | | | | | | | | | |
| | Madison | | | | | | | 7 | 1 | 8 | | | |
| | Marion | | | | | | | | | | | | |
| | Marshall | | | | | | | | | | | | |
| | Morgan | 1 | | 1 | | | | | | | 2 | | 2 |
| | Winston | | | | | | | | | | | | |
| PHA II | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | 1 | | 1 | | | |
| | Tuscaloosa | | | 5 | | | | | | 1 | | | |
| PHA III | Blount | | | | | | | | | | 2 | | 2 |
| | Chilton | | | | | | | 1 | | 1 | | | |
| | Jefferson | | | 1 | 1 | | 1 | | | 16 | 4 | 1 | 5 |
| | St. Clair | | | | | | | | | 1 | 1 | | 1 |
| | Shelby | | | | | | 1 | 1 | | 1 | 1 | | 1 |
| | Walker | | | | | | | 5 | | 5 | | | |
| PHA IV | Calhoun | | | | | | | | | | | | |
| | Chambers | | | | | | | | | | | | |
| | Cherokee | | | | | | | | | | 1 | | 1 |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | 1 | | | |
| | Etowah | | | | | | | | | 1 | | | |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | | | | 1 | | 1 |
| | Tallapoosa | | | | | | | | | | | | |
| PHA V | Autauga | | | | | | | | | | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | | |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | | | | | | | |
| | Elmore | | | | | | | 1 | | 1 | | | |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | |
| | Houston | | | | | | | | | | | | |
| | Lee | | | | | | | 1 | | 1 | 1 | | 1 |
| | Lowndes | | | | | | | | | | | | |
| | Macon | | | | | | | 1 | | 1 | | | |
| | Montgomery | | | | | 1 | 1 | 2 | | 2 | 2 | | 2 |
| | Pike | | | | | | | | | | | | |
| | Russell | | | | | | | | | | | | |
| PHA VI | Baldwin | | | | | | | 3 | | 3 | 2 | | 2 |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | 1 | | 1 | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | | | 4 | | | | 35 | 10 | 47 | 1 | 1 | 2 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev. 2-85

## TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Giardiasis | | | Gonorrhea | | | Hepatitis A | | | Hepatitis B | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 18 | 1 | 1,277 | | | 23,376 | 116 | 10 | 127 | 332 | 126 | 464 |
| PHA I | Colbert | | | 10 | | | 235 | | | | 22 | 5 | 29 |
| | Cullman | | | 9 | | | 34 | | | | 3 | | 3 |
| | Franklin | 7 | | 16 | | | 34 | | | | 8 | | 8 |
| | Jackson | | | 1 | | | 6 | 12 | | 12 | 8 | 2 | 11 |
| | Lauderdale | | | 3 | | | 131 | 1 | 1 | 2 | 13 | 7 | 20 |
| | Lawrence | | | 10 | | | 82 | | | | 1 | | 1 |
| | Limestone | | | 4 | | | 67 | | | | | | |
| | Madison | | | 9 | | | 1,397 | 3 | | 3 | 13 | 3 | 16 |
| | Marion | | | 3 | | | 5 | | | | | | |
| | Marshall | | | | | | 16 | 12 | | 12 | 13 | | 13 |
| | Morgan | 1 | | 58 | | | 212 | 8 | | 8 | 6 | 1 | 7 |
| | Winston | | | 2 | | | 5 | | | | 3 | 1 | 4 |
| PHA II | Bibb | | | | | | 33 | 1 | | 1 | | | |
| | Fayette | | | | | | 15 | | | | | | |
| | Greene | | | | | | 61 | | | | | 1 | 1 |
| | Hale | | | | | | 99 | | | | 1 | | 1 |
| | Lamar | | | | | | 16 | | | | | | |
| | Pickens | | | 1 | | | 29 | | | | | | |
| | Tuscaloosa | | | 39 | | | 1,455 | 1 | | 1 | 9 | 2 | 11 |
| PHA III | Blount | | | 3 | | | 33 | 1 | | 1 | 5 | | 5 |
| | Chilton | 1 | | 2 | | | 63 | | | | | | |
| | Jefferson | | | 51 | | | 7,074 | 7 | 1 | 8 | 60 | 31 | 92 |
| | St. Clair | | | 6 | | | 43 | 2 | | 2 | 2 | 1 | 3 |
| | Shelby | | | 14 | | | 72 | | | | 4 | 2 | 6 |
| | Walker | 1 | | 3 | | | 82 | 5 | | 5 | 8 | | 8 |
| PHA IV | Calhoun | | | 4 | | | 596 | | 1 | 1 | 2 | 2 | 4 |
| | Chambers | | | | | | 91 | | | | 1 | | 1 |
| | Cherokee | | | | | | 5 | | | | | | |
| | Clay | | | | | | 62 | | | | | | |
| | Cleburne | | | | | | 12 | | | | 2 | | 2 |
| | Coosa | | | | | | 54 | | | | | | |
| | DeKalb | | | 4 | | | 59 | | | | | | |
| | Etowah | 2 | | 4 | | | 242 | | | | 2 | 1 | 3 |
| | Randolph | | | | | | 13 | | | | 1 | | 1 |
| | Talladega | | | | | | 264 | 1 | | 1 | 5 | 1 | 6 |
| | Tallapoosa | | | 8 | | | 57 | | | | | | |
| PHA V | Autauga | 1 | | 1 | | | 30 | | | | 1 | 1 | 2 |
| | Barbour | | | | | | 28 | | | | | | |
| | Bullock | | | | | | 71 | 1 | | 1 | | | |
| | Butler | | | 5 | | | 64 | | | | | | |
| | Coffee | | | 3 | | | 88 | | | | 3 | | 3 |
| | Covington | | | 26 | | | 148 | 12 | 3 | 15 | 4 | 1 | 5 |
| | Crenshaw | | | 4 | | | 14 | 1 | | 1 | 1 | 1 | 2 |
| | Dale | 1 | | 4 | | | 89 | | | | 1 | 1 | 2 |
| | Elmore | | | 12 | | | 71 | 4 | | 4 | 10 | 2 | 12 |
| | Geneva | | | 12 | | | 13 | 1 | 1 | 2 | 3 | 1 | 4 |
| | Henry | | | 4 | | | 25 | | | | | 2 | 2 |
| | Houston | | | 33 | | | 466 | 1 | 1 | 2 | 4 | 5 | 9 |
| | Lee | 1 | | 104 | | | 355 | | | | | | |
| | Lowndes | | | 8 | | | 124 | | | | 1 | | 1 |
| | Macon | | | | | | 210 | | | | | | |
| | Montgomery | 1 | 1 | 79 | | | 3,518 | 29 | | 30 | 22 | 11 | 34 |
| | Pike | | | 5 | | | 223 | | | | | | |
| | Russell | | | 1 | | | 231 | | | | 3 | 1 | 4 |
| PHA VI | Baldwin | | | 50 | | | 143 | | | | 8 | | 8 |
| | Choctaw | | | | | | 11 | | | | 1 | | 1 |
| | Clarke | | | 4 | | | 85 | | 1 | 1 | | 1 | 1 |
| | Conecuh | | | 5 | | | 70 | | | | 1 | | 1 |
| | Dallas | | | 6 | | | 648 | | | | 1 | | 1 |
| | Escambia | | | 23 | | | 138 | 1 | | 1 | | | |
| | Marengo | | | | | | 23 | | | | | 2 | 2 |
| | Mobile | 2 | | 606 | | | 3,513 | 12 | 1 | 13 | 70 | 37 | 108 |
| | Monroe | | | 6 | | | 5 | | | | 1 | | 1 |
| | Perry | | | | | | 25 | | | | | | |
| | Sumter | | | 1 | | | 42 | | | | | | |
| | Washington | | | 9 | | | 16 | | | | 5 | | 5 |
| | Wilcox | | | 2 | | | 135 | | | | | | |

Total includes reports not stating race.

ADPH-F-EPI-15/Rev. 2-85

## TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Hepatitis, Unspec. | | | Hepatitis, Non A, Non B | | | Histoplasmosis | | | Legionellosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 29 | 6 | 35 | 57 | 13 | 70 | 36 | 11 | 81 | 13 | 4 | 19 |
| PHA I | Colbert | | | | 4 | | 4 | | | | | | |
| | Cullman | | | | | | | | | | | | |
| | Franklin | | | | 1 | | 1 | | | | 1 | | 1 |
| | Jackson | | | | 2 | | 2 | | | | | | |
| | Lauderdale | 1 | | 1 | 1 | | 1 | | | 1 | | | |
| | Lawrence | | | | 1 | | 1 | | | | | | |
| | Limestone | | | | | | | | | | | | |
| | Madison | | 1 | 1 | 5 | 1 | 6 | | 1 | 2 | | | |
| | Marion | | | | | | | | | | | | |
| | Marshall | 1 | | 1 | 4 | | 4 | | | | | | |
| | Morgan | | 1 | 1 | 1 | 1 | 2 | | | 2 | | | |
| | Winston | 2 | | 2 | | | | | | | | | |
| PHA II | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | 2 | 1 | 3 | 3 | | 5 | | | 1 |
| PHA III | Blount | | | | | | | | | | | | |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | 3 | | 3 | 16 | 4 | 20 | 10 | 1 | 23 | | 1 | 1 |
| | St. Clair | 1 | | 1 | 1 | | 1 | | | | | | |
| | Shelby | | | | 1 | | 1 | | | | | | |
| | Walker | 3 | | 3 | | | | | | | | | |
| PHA IV | Calhoun | 1 | | 1 | 1 | 1 | 2 | | | | | | |
| | Chambers | | | | | | | | | | 11 | 3 | 14 |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | | | | | 1 | 1 | | | | | | |
| | Randolph | | | | 1 | | 1 | | | | | | 1 |
| | Talladega | | | | 1 | | 1 | | | | | | |
| | Tallapoosa | | | | | | | | | | | | |
| PHA V | Autauga | | | | | | | 1 | | 2 | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | | |
| | Covington | | | | | | | 1 | | 1 | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | | | | | | | |
| | Elmore | | | | 1 | | 1 | 1 | | 1 | | | |
| | Geneva | | | | | | | | | | | | |
| | Henry | 1 | | 1 | | | | | | | | | |
| | Houston | 1 | | 1 | 1 | 1 | 2 | | | | | | |
| | Lee | | | | | | | | | | 1 | | 1 |
| | Lowndes | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | 1 | | 1 | 4 | | 4 | 18 | 8 | 37 | | | |
| | Pike | | | | | | | | | | | | |
| | Russell | | | | | | | | | 1 | | | |
| PHA VI | Baldwin | 1 | | 1 | 1 | | 1 | | | | | | |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | 1 | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | 1 | | 1 | 1 | | 2 | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | 1 | 1 | | | | | | |
| | Mobile | 13 | 4 | 17 | 7 | 2 | 9 | 1 | | 2 | | | |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | 1 | 1 | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev. 2-85

## TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Leptospirosis | | | Malaria | | | Measles | | | Meningitis, Aseptic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | | | 1 | 4 | 2 | 8 | 3 | | 3 | 169 | 69 | 238 |
| PHA I | Colbert | | | | | | | | | | | | |
| | Cullman | | | | | | | | | | 2 | | 2 |
| | Franklin | | | | | | | | | | 1 | | 1 |
| | Jackson | | | | 1 | | 1 | | | | | | |
| | Lauderdale | | | | | | | | | | 1 | | 1 |
| | Lawrence | | | | | | | | | | | | |
| | Limestone | | | | | | | | | | | | |
| | Madison | | | | | | 1 | | | | | | |
| | Marion | | | | | | | | | | 1 | | 1 |
| | Marshall | | | | | | | | | | 5 | | 5 |
| | Morgan | | | | | | | | | | 2 | 2 | 4 |
| | Winston | | | | | | | | | | | | |
| PHA II | Bibb | | | | | | | | | | 1 | | 1 |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | | | | | | | | | |
| PHA III | Blount | | | | | | | | | | 2 | | 2 |
| | Chilton | | | | | | | | | | 1 | | 1 |
| | Jefferson | | | | 3 | | 3 | | | | 83 | 52 | 135 |
| | St. Clair | | | | | | | | | | 2 | | 2 |
| | Shelby | | | | | | | | | | 11 | 6 | 17 |
| | Walker | | | | | | | | | | 5 | | 5 |
| PHA IV | Calhoun | | | | | | | | | | | | |
| | Chambers | | | | | | | | | | 1 | | 1 |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | 1 | 1 |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | 3 | | 3 |
| | Etowah | | | | | | | 3 | | 3 | 7 | 1 | 8 |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | | | | | | |
| | Tallapoosa | | | | | | | | | | | | |
| PHA V | Autauga | | | | | | | | | | 1 | | 1 |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | | | | | | | | | | | |
| | Covington | | | | | | | | | | 1 | | 1 |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | | | | | | | |
| | Elmore | | | | | 1 | 1 | | | | 1 | | 1 |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | 1 | 1 | 2 |
| | Houston | | | | | | | | | | 2 | | 2 |
| | Lee | | | | | | | | | | | | |
| | Lowndes | | | | | | | | | | | | |
| | Macon | | | | | | | | | | 2 | | 2 |
| | Montgomery | | | 1 | | 1 | 1 | | | | | | |
| | Pike | | | | | | | | | | | | |
| | Russell | | | | | | | | | | | | |
| PHA VI | Baldwin | | | | | | | | | | 1 | 1 | 2 |
| | Choctaw | | | | | | 1 | | | | 1 | | 1 |
| | Clarke | | | | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | | | | | | | | | | 31 | 5 | 36 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev 2-85

## TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Meningococcal Meningitis | | | Mumps | | | Pertussis | | | Rabies in Animals | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 26 | 9 | 36 | 5 | 1 | 6 | | 1 | 2 | | | 130 |
| PHA I | Colbert | | | | | | | | | | | | 4 |
| | Cullman | | | | | | | | | | | | 1 |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | | | | | | | | | 1 |
| | Lawrence | 1 | | 1 | 1 | | 1 | | | | | | |
| | Limestone | | | | | | | | | | | | 2 |
| | Madison | 3 | | 3 | | | | | | | | | 11 |
| | Marion | | | | | | | | | | | | |
| | Marshall | 1 | | 1 | | | | | | | | | 1 |
| | Morgan | | | | | | | | | | | | 1 |
| | Winston | | | | | | | | | | | | |
| PHA II | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | 1 | 1 | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | | | | | | | | | |
| PHA III | Blount | | | | | | | | | | | | |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | 4 | 1 | 5 | | | | | | | | | 4 |
| | St. Clair | 1 | | 1 | | | | | | | | | |
| | Shelby | | | | | | | | | | | | 3 |
| | Walker | | | | | | | | | | | | |
| PHA IV | Calhoun | 2 | | 3 | | | | | | | | | 1 |
| | Chambers | | | | 1 | | 1 | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | 1 | 1 | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | 2 | | 2 | | | | | | | | | 7 |
| | Randolph | 2 | | 2 | | | | | | | | | |
| | Talladega | 1 | | 1 | | | | | | | | | 3 |
| | Tallapoosa | 1 | | 1 | | | | | | | | | |
| PHA V | Autauga | | | | | | | | | 1 | | | 2 |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | 3 |
| | Butler | | | | | | | | | | | | 2 |
| | Coffee | | | | | | | | | | | | 12 |
| | Covington | 1 | | 1 | | | | | | | | | 6 |
| | Crenshaw | | | | | | | | | | | | 2 |
| | Dale | | | | | | | | | | | | 9 |
| | Elmore | 1 | | 1 | 1 | | 1 | | | | | | 1 |
| | Geneva | | | | | | | | | | | | 8 |
| | Henry | | | | | | | | | | | | 6 |
| | Houston | 1 | 1 | 2 | | | | | | | | | 15 |
| | Lee | | | | | | | | | | | | 3 |
| | Lowndes | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | 2 |
| | Montgomery | | | | 1 | | 1 | | | | | | 9 |
| | Pike | | | | | | | | | | | | 4 |
| | Russell | 1 | | 1 | | 1 | 1 | | | | | | |
| PHA VI | Baldwin | | 1 | 1 | | | | | | | | | 2 |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | | | 2 |
| | Conecuh | | | | | | | | | | | | 1 |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | 4 | 5 | 9 | | | | | | | | | 2 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | 1 | | 1 | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race

ADPH-F-EPI-15/Rev. 2-85

## TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Reye Syndrome | | | Rocky Mt. Spotted Fever | | | Rubella | | | Salmonellosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 5 | | 5 | 13 | 2 | 15 | 3 | | 3 | 24 | 13 | 477 |
| PHA I | Colbert | | | | 1 | | 1 | | | | 1 | | 5 |
| | Cullman | | | | | | | | | | 2 | | 6 |
| | Franklin | | | | 1 | | 1 | | | | | | 1 |
| | Jackson | | | | 1 | | 1 | | | | | | 3 |
| | Lauderdale | | | | | | | | | | 2 | | 5 |
| | Lawrence | | | | | | | | | | | | |
| | Limestone | 1 | | 1 | | | | | | | | | |
| | Madison | 1 | | 1 | 1 | | 1 | | | | 1 | 3 | 21 |
| | Marion | | | | | | | | | | | | 2 |
| | Marshall | | | | 1 | | 1 | | | | | | |
| | Morgan | | | | 2 | | 2 | | | | 1 | | 7 |
| | Winston | | | | | | | | | | | | 1 |
| PHA II | Bibb | | | | | | | | | | | | |
| | Fayette | | | | 1 | | 1 | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | 12 |
| | Tuscaloosa | | | | | | | | | | | | 19 |
| PHA III | Blount | | | | | | | | | | | | |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | | | | 3 | 1 | 4 | | | | 1 | | 174 |
| | St. Clair | | | | | | | | | | 2 | | 7 |
| | Shelby | | | | | | | | | | | | |
| | Walker | | | | 2 | | 2 | | | | | 1 | 1 |
| PHA IV | Calhoun | 1 | | 1 | | | | | | | | | 7 |
| | Chambers | | | | | | | | | | | | 2 |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | | | | | | | | | | 1 | | 9 |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | | | | 1 | | 1 |
| | Tallapoosa | | | | | | | | | | | | 1 |
| PHA V | Autauga | | | | | | | 1 | | 1 | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | 1 | 1 | | | | 1 | | 1 |
| | Butler | | | | | | | | | | | 1 | 1 |
| | Coffee | | | | | | | | | | 1 | | 1 |
| | Covington | | | | | | | | | | | | 1 |
| | Crenshaw | | | | | | | | | | | | 1 |
| | Dale | | | | | | | | | | | | |
| | Elmore | | | | | | | | | | 1 | | 2 |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | 1 |
| | Houston | | | | | | | | | | 2 | 1 | 27 |
| | Lee | | | | | | | | | | | | |
| | Lowndes | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | 1 | | 1 | | 3 | 59 |
| | Pike | | | | | | | | | | 1 | | 4 |
| | Russell | | | | | | | | | | | | 6 |
| PHA VI | Baldwin | 1 | | 1 | | | | | | | | | 2 |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | 2 |
| | Dallas | | | | | | | | | | | | 3 |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | 1 | | 1 | | | | 1 | | 1 | 6 | 4 | 82 |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | | | | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race.

ADPH-F-EPI-15/Rev. 2-85

# TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Shigellosis | | | Syphilis | | | Tetanus | | | Tuberculosis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 1 | 6 | 76 | | | 1,382 | | 2 | 2 | 262 | 302 | 565 |
| PHA I | Colbert | | | | | | 13 | | | | 7 | 3 | 10 |
| | Cullman | | | | | | 4 | | | | 10 | | 10 |
| | Franklin | | | | | | 3 | | | | 6 | 1 | 7 |
| | Jackson | | | | | | | | | | 8 | | 8 |
| | Lauderdale | | | | | | 4 | | | | 7 | 4 | 11 |
| | Lawrence | | | | | | 3 | | | | 3 | | 3 |
| | Limestone | | | | | | 18 | | | | 4 | 4 | 8 |
| | Madison | | | 1 | | | 26 | | | | 25 | 14 | 39 |
| | Marion | | | | | | 2 | | | | 3 | 1 | 4 |
| | Marshall | | | | | | 2 | | | | 8 | | 8 |
| | Morgan | | | | | | 7 | | | | 6 | | 6 |
| | Winston | | | | | | | | | | 1 | | 1 |
| PHA II | Bibb | | | | | | 1 | | | | 2 | | 2 |
| | Fayette | | | 1 | | | 1 | | | | 4 | | 4 |
| | Greene | | | | | | 10 | | | | | 2 | 2 |
| | Hale | | | | | | 1 | | | | 2 | | 2 |
| | Lamar | | | | | | 4 | | | | 2 | | 2 |
| | Pickens | | | | | | 1 | | | | | 2 | 2 |
| | Tuscaloosa | | | 2 | | | 31 | | | | 9 | 21 | 30 |
| PHA III | Blount | | | | | | 2 | | | | 4 | | 4 |
| | Chilton | | | | | | 2 | | | | 1 | | 1 |
| | Jefferson | | | 46 | | | 291 | | | | 45 | 75 | 120 |
| | St. Clair | | | | | | 6 | | | | 1 | 1 | 2 |
| | Shelby | | | | | | 8 | | | | 3 | 3 | 6 |
| | Walker | | | | | | 1 | | | | 1 | | 1 |
| PHA IV | Calhoun | | | | | | 24 | | | | 10 | 5 | 16 |
| | Chambers | | | | | | 8 | | | | | 2 | 2 |
| | Cherokee | | | | | | | | | | 2 | 1 | 3 |
| | Clay | | | | | | 2 | | | | | 1 | 1 |
| | Cleburne | | | | | | | | | | 1 | | 1 |
| | Coosa | | | | | | 3 | | | | 1 | | 1 |
| | DeKalb | | | | | | 1 | | | | 5 | 1 | 6 |
| | Etowah | | | | | | 18 | | | | 16 | 12 | 28 |
| | Randolph | | | | | | | | | | 1 | 2 | 3 |
| | Talladega | | | | | | 28 | | | | 3 | 6 | 9 |
| | Tallapoosa | | | | | | 3 | | | | 3 | 2 | 5 |
| PHA V | Autauga | | | | | | 8 | | | | 1 | 1 | 2 |
| | Barbour | | | | | | 6 | | | | 1 | | 1 |
| | Bullock | | | | | | 4 | | | | | 1 | 1 |
| | Butler | | | | | | 4 | | | | | 1 | 1 |
| | Coffee | | | | | | 15 | | | | 1 | 1 | 2 |
| | Covington | | | | | | 7 | | | | 1 | 1 | 2 |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | 15 | | | | 1 | | 1 |
| | Elmore | | 1 | 1 | | | 11 | | | | 4 | 3 | 7 |
| | Geneva | | | | | | 13 | | | | | 2 | 2 |
| | Henry | | | | | | 2 | | | | | 1 | 1 |
| | Houston | | | 1 | | | 32 | | | | 1 | 6 | 7 |
| | Lee | | | | | | 10 | | | | 2 | 5 | 7 |
| | Lowndes | | | | | | 8 | | | | | 1 | 1 |
| | Macon | | | | | | 8 | | | | 1 | 7 | 8 |
| | Montgomery | | | 9 | | | 212 | | 2 | 2 | 8 | 24 | 32 |
| | Pike | | | | | | 11 | | | | | 1 | 1 |
| | Russell | | | | | | 13 | | | | 2 | 6 | 8 |
| PHA VI | Baldwin | | | | | | 22 | | | | 5 | 4 | 9 |
| | Choctaw | | | | | | 1 | | | | 2 | | 2 |
| | Clarke | | | | | | 2 | | | | 2 | 2 | 4 |
| | Conecuh | | | | | | 2 | | | | | 1 | 1 |
| | Dallas | | | 1 | | | 37 | | | | 4 | 17 | 21 |
| | Escambia | | | | | | 59 | | | | 2 | 6 | 8 |
| | Marengo | | | | | | 37 | | | | 1 | 1 | 2 |
| | Mobile | 1 | 4 | 13 | | | 262 | | | | 15 | 37 | 52 |
| | Monroe | | | | | | 18 | | | | | 1 | 1 |
| | Perry | | | | | | 3 | | | | | 5 | 5 |
| | Sumter | | 1 | 1 | | | 26 | | | | 1 | 2 | 3 |
| | Washington | | | | | | | | | | 1 | 1 | 2 |
| | Wilcox | | | | | | 6 | | | | 2 | 1 | 3 |

Total includes reports not stating race.

ADPH-F-EPI-15/Rev. 2-85

## TABLE 7-3 (continued)
## COMMUNICABLE DISEASE MORBIDITY BY COUNTY AND RACE
## 1984

| | | Typhoid Fever | | | Typhus, Murine | | | Diphtheria | | | Poliomyelitis | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total | White | Nonwhite | Total |
| | **Entire State** | 1 | 1 | 2 | | | 0 | | | 0 | | | 0 |
| PHA I | Colbert | | | | | | | | | | | | |
| | Cullman | | | | | | | | | | | | |
| | Franklin | | | | | | | | | | | | |
| | Jackson | | | | | | | | | | | | |
| | Lauderdale | | | | | | | | | | | | |
| | Lawrence | | | | | | | | | | | | |
| | Limestone | | | | | | | | | | | | |
| | Madison | | | | | | | | | | | | |
| | Marion | | | | | | | | | | | | |
| | Marshall | | | | | | | | | | | | |
| | Morgan | | | | | | | | | | | | |
| | Winston | | | | | | | | | | | | |
| PHA II | Bibb | | | | | | | | | | | | |
| | Fayette | | | | | | | | | | | | |
| | Greene | | | | | | | | | | | | |
| | Hale | | | | | | | | | | | | |
| | Lamar | | | | | | | | | | | | |
| | Pickens | | | | | | | | | | | | |
| | Tuscaloosa | | | | | | | | | | | | |
| PHA III | Blount | | | | | | | | | | | | |
| | Chilton | | | | | | | | | | | | |
| | Jefferson | | | | | | | | | | | | |
| | St. Clair | | | | | | | | | | | | |
| | Shelby | | | | | | | | | | | | |
| | Walker | | | | | | | | | | | | |
| PHA IV | Calhoun | | | | | | | | | | | | |
| | Chambers | | | | | | | | | | | | |
| | Cherokee | | | | | | | | | | | | |
| | Clay | | | | | | | | | | | | |
| | Cleburne | | | | | | | | | | | | |
| | Coosa | | | | | | | | | | | | |
| | DeKalb | | | | | | | | | | | | |
| | Etowah | | | | | | | | | | | | |
| | Randolph | | | | | | | | | | | | |
| | Talladega | | | | | | | | | | | | |
| | Tallapoosa | | | | | | | | | | | | |
| PHA V | Autauga | | | | | | | | | | | | |
| | Barbour | | | | | | | | | | | | |
| | Bullock | | | | | | | | | | | | |
| | Butler | | | | | | | | | | | | |
| | Coffee | | 1 | 1 | | | | | | | | | |
| | Covington | | | | | | | | | | | | |
| | Crenshaw | | | | | | | | | | | | |
| | Dale | | | | | | | | | | | | |
| | Elmore | | | | | | | | | | | | |
| | Geneva | | | | | | | | | | | | |
| | Henry | | | | | | | | | | | | |
| | Houston | | | | | | | | | | | | |
| | Lee | | | | | | | | | | | | |
| | Lowndes | | | | | | | | | | | | |
| | Macon | | | | | | | | | | | | |
| | Montgomery | | | | | | | | | | | | |
| | Pike | | | | | | | | | | | | |
| | Russell | | | | | | | | | | | | |
| PHA VI | Baldwin | | | | | | | | | | | | |
| | Choctaw | | | | | | | | | | | | |
| | Clarke | | | | | | | | | | | | |
| | Conecuh | | | | | | | | | | | | |
| | Dallas | | | | | | | | | | | | |
| | Escambia | | | | | | | | | | | | |
| | Marengo | | | | | | | | | | | | |
| | Mobile | | | | | | | | | | | | |
| | Monroe | | | | | | | | | | | | |
| | Perry | | | | | | | | | | | | |
| | Sumter | | | | | | | | | | | | |
| | Washington | 1 | | 1 | | | | | | | | | |
| | Wilcox | | | | | | | | | | | | |

Total includes reports not stating race.

ADPH-F-EPI-15/Rev 2-85

# TABLE 7-4
# DISEASE INCIDENCE BY AGE GROUPS
# 1984

| AGE GROUP | Amebiasis | | | | | Brucellosis | | | | | Campylobacter | | | | | Encephalitis | | | | | Giardiasis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | | | | | | 8 | 3 | 3 | 2 | 16 | 3 | 2 | | | 5 | 8 | 1 | | | 9 |
| 5- 9 | | | | | | | | | | | 5 | 1 | | | 6 | 1 | | | | 1 | 1 | 1 | | | 2 |
| 10-14 | | | | | | | | | | | 2 | | | | 2 | | 2 | | | 2 | | 1 | | | 1 |
| 15-19 | | | | | | | 1 | | | 1 | 2 | 4 | | | 6 | 3 | | | | 3 | | | | | |
| 20-24 | | | | | | 1 | | | | 1 | 5 | 8 | | | 13 | | 1 | | | 1 | 2 | | | | 2 |
| 25-34 | | | | | | | | 1 | | 1 | 8 | 4 | 2 | 1 | 15 | 1 | 2 | 1 | | 4 | | | 1 | | 1 |
| 35-44 | | | | | | | | | | | 2 | 2 | | | 4 | 3 | 1 | | | 4 | | 3 | | | 3 |
| 45-54 | | | | | | | | | | | 2 | 3 | | | 5 | 2 | 1 | | | 3 | | | | | |
| 55-64 | | | | | | | | | | | 1 | | | 1 | 2 | | 2 | | | 2 | | | | | |
| 65-74 | | 1 | | | 1 | | | | | | 1 | 1 | | | 2 | | | 1 | | 1 | | | | | |
| 75+ | | | | | | | | | | | | 1 | | 1 | 2 | | | | | | | | | | |
| N.S. | | | | | | | | | | | | 1 | 1 | | 2 | | | | | | 1 | | | | 1 |
| TOTAL BY RACE | 1 | | | | | 2 | | 1 | | | 64 | | 11 | | | 24 | | 2 | | | 18 | | 1 | | |
| TOTAL | 1 | | | | | 3 | | | | | 75 | | | | | 26 | | | | | 19 | | | | |
| UNCLASSIFIED | 10 | | | | | 1 | | | | | 24 | | | | | | | | | | 1,258 | | | | |
| GRAND TOTAL | 11 | | | | | 4 | | | | | 99 | | | | | 26 | | | | | 1,277 | | | | |

# TABLE 7-4 (continued)
# DISEASE INCIDENCE BY AGE GROUPS
# 1984

| AGE GROUP | Hepatitis A | | | | | Hepatitis B | | | | | Hepatitis, Unspec | | | | | Hepatitis, Non A, Non B | | | | | Leptospirosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | 6 | 4 | | 1 | 11 | 3 | 6 | 1 | 3 | 13 | | | 1 | 1 | 2 | | | | | | | | | | |
| 5- 9 | 5 | 10 | 1 | 1 | 17 | | | 1 | 1 | 2 | | 1 | | | 1 | | | | | | | | | | |
| 10-14 | 12 | 2 | 1 | 1 | 16 | | 1 | 2 | | 3 | | 2 | | | 2 | | 1 | 1 | | 2 | | | | | |
| 15-19 | 4 | 5 | 1 | 1 | 11 | 13 | 22 | 6 | 7 | 48 | 2 | 4 | | | 6 | 3 | 3 | 1 | 1 | 8 | | | | | |
| 20-24 | 4 | 8 | 1 | 1 | 14 | 45 | 40 | 11 | 10 | 106 | 4 | 1 | | 1 | 6 | 6 | 3 | 2 | 1 | 12 | | | | | |
| 25-34 | 20 | 16 | | | 36 | 48 | 32 | 27 | 19 | 126 | 6 | 3 | 1 | | 10 | 7 | 4 | 4 | 1 | 16 | | | | | |
| 35-44 | 2 | 5 | | | 7 | 22 | 17 | 5 | 11 | 55 | 1 | 2 | 1 | | 4 | 4 | 2 | 1 | | 7 | | | | | |
| 45-54 | | 2 | | | 2 | 16 | 13 | 5 | 1 | 35 | | 1 | | | 1 | 5 | 4 | 1 | | 10 | | | | | |
| 55-64 | 4 | 1 | | 1 | 6 | 12 | 8 | 3 | 1 | 24 | | | | | | 3 | 4 | | | 7 | | | | | |
| 65-74 | | 2 | | | 2 | 6 | 4 | 1 | 2 | 13 | | | | | | 4 | | | | 4 | | | | | |
| 75+ | | | | | | | 7 | 2 | 3 | 12 | 1 | | | | 1 | 1 | 1 | | | 2 | | | | | |
| N.S. | 2 | 2 | | | 4 | 10 | 7 | 2 | 2 | 21 | | 1 | 1 | | 2 | 1 | 1 | | | 2 | | | | | |
| TOTAL BY RACE | 116 | | 10 | | | 332 | | 126 | | | 29 | | 6 | | | 57 | | 13 | | | | | | | |
| TOTAL | 126 | | | | | 458 | | | | | 35 | | | | | 70 | | | | | | | | | |
| UNCLASSI-FIED | 1 | | | | | 6 | | | | | | | | | | | | | | | 1 | | | | |
| GRAND TOTAL | 127 | | | | | 464 | | | | | 35 | | | | | 70 | | | | | 1 | | | | |

ADPH-F-EPI-16/Rev. 11-81

## TABLE 7-4 (continued)
## DISEASE INCIDENCE BY AGE GROUPS
## 1984

| AGE GROUP | Histoplamosis | | | | | Legionellosis | | | | | Measles | | | | | Mumps | | | | | Pertussis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| Under 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 |
| 2 | 1 | | | | 1 | | | | | | | | | | | | | 1 | | 1 | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 11 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| 12 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | |
| 13 | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15-19 | 4 | 2 | | | 6 | | | | 1 | 1 | 2 | | | | 2 | | | | | | | | | | |
| 20-24 | 2 | | 1 | 1 | 4 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 25-34 | 4 | 2 | 3 | | 9 | | | | | | | | | | | | 2 | | | 2 | | | | | |
| 35-44 | 6 | 2 | 1 | | 9 | | 1 | | 1 | 2 | | | | | | | | | | | | | | | |
| 45-54 | 3 | 3 | 2 | 1 | 9 | 1 | 2 | | | 3 | | | | | | | | | | | | | | | |
| 55-64 | 2 | 1 | | | 3 | 1 | 1 | 2 | | 4 | | | | | | 1 | | | | 1 | | | | | |
| 65-74 | 1 | | | 1 | 2 | 1 | 3 | | | 4 | | | | | | | | | | | | | | | |
| 75+ | | | | | | 3 | | | | 3 | | | | | | | | | | | | | | | |
| N.S. | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 36 | | 11 | | | 13 | | 4 | | | 3 | | | | | 5 | | 1 | | | | | 1 | | |
| TOTAL | 47 | | | | | 17 | | | | | 3 | | | | | 6 | | | | | 1 | | | | |
| UNCLASSIFIED | 34 | | | | | 2 | | | | | | | | | | | | | | | 1 | | | | |
| GRAND TOTAL | 81 | | | | | 19 | | | | | 3 | | | | | 6 | | | | | 2 | | | | |

ADPH-F-EPI-17/Rev. 11-81

## TABLE 7-4 (continued)
## DISEASE INCIDENCE BY AGE GROUPS
## 1984

| AGE GROUP | Malaria | | | | | Meningitis, Aseptic | | | | | Meningococcal, Men. | | | | | Reye Syndrome | | | | | Rocky Mt. Spotted Fev. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | 21 | 19 | 15 | 12 | 67 | 9 | 6 | 2 | 4 | 21 | 2 | 1 | | | 3 | | | | | |
| 5- 9 | | | 1 | | 1 | 10 | 6 | 2 | 3 | 21 | | 2 | | 2 | 4 | | 1 | | | 1 | 2 | 1 | | | 3 |
| 10-14 | | | | | | 8 | 5 | 5 | 1 | 19 | 1 | 1 | 1 | | 3 | 1 | | | | 1 | 4 | 1 | | | 5 |
| 15-19 | | | | | | 14 | 7 | 4 | 2 | 27 | 1 | | | | 1 | | | | | | 1 | 1 | 1 | | 3 |
| 20-24 | 1 | | | | 1 | 12 | 5 | 2 | 5 | 24 | | | | | | | | | | | | | | | |
| 25-34 | | | 1 | | 1 | 19 | 23 | 3 | 10 | 55 | 1 | 1 | | | 2 | | | | | | 2 | | 1 | | 3 |
| 35-44 | | 1 | | | 1 | 6 | 6 | 1 | 3 | 16 | 1 | | | | 1 | | | | | | | | | | |
| 45-54 | | | 1 | | 1 | 2 | 1 | 1 | | 4 | | | | | | | | | | | | | | | |
| 55-64 | | | | | | 2 | | | | 2 | 1 | | | | 1 | | | | | | | | | | |
| 65-74 | 1 | | | | 1 | | | | | | 1 | 1 | | | 2 | | | | | | | | | | |
| 75+ | 1 | | | | 1 | | 1 | | | 1 | | | | | | | | | | | 1 | | | | 1 |
| N.S. | | | | | | 1 | 1 | | | 2 | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 4 | | 3 | | | 169 | | 69 | | | 26 | | 9 | | | 5 | | | | | 13 | | 2 | | |
| TOTAL | 7 | | | | | 238 | | | | | 35 | | | | | 5 | | | | | 15 | | | | |
| UNCLASSIFIED | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| GRAND TOTAL | 8 | | | | | 238 | | | | | 36 | | | | | 5 | | | | | 15 | | | | |

ADPH-F-EPI-16/Rev. 11-81

# TABLE 7-4 (continued)
# DISEASE INCIDENCE BY AGE GROUPS
# 1984

| AGE GROUP | Rubella | | | | | Salmonellosis | | | | | Shigellosis | | | | | Tetanus | | | | | Tuberculosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | 6 | 3 | 4 | 7 | 20 | | | 3 | 2 | 5 | | | | | | 2 | 1 | 3 | 3 | 9 |
| 5- 9 | | | | | | 1 | | | | 1 | 1 | | | | 1 | | | | | | | | 2 | 4 | 6 |
| 10-14 | | | | | | 1 | 2 | | | 3 | | | | | | | | | | | | | 1 | 1 | 2 |
| 15-19 | | | | | | | 1 | | | 1 | | | | | | | | | | | | | 2 | 1 | 3 |
| 20-24 | | 1 | | | 1 | | 2 | | | 2 | | | | | | | | | | | 4 | 1 | 11 | 9 | 25 |
| 25-34 | | 2 | | | 2 | | | 1 | | 1 | | | | | | | | | | | 7 | 4 | 19 | 17 | 47 |
| 35-44 | | | | | | 1 | 1 | | | 2 | | | 1 | | 1 | | | | | | 19 | 5 | 27 | 8 | 59 |
| 45-54 | | | | | | 1 | | | | 1 | | | | | | | | | | | 26 | 6 | 38 | 11 | 81 |
| 55-64 | | | | | | 3 | | | | 3 | | | | | | | | | | | 39 | 6 | 32 | 13 | 90 |
| 65-74 | | | | | | | 1 | | | 1 | | | | | | | | | | | 38 | 16 | 34 | 15 | 103 |
| 75+ | | | | | | 1 | | 1 | | 2 | | | | | | | | 1 | 1 | 2 | 56 | 32 | 37 | 12 | 137 |
| N.S. | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 |
| TOTAL BY RACE | 3 | | | | | 24 | | 13 | | | 1 | | 6 | | | | | 2 | | | 262 | | 302 | | |
| TOTAL | 3 | | | | | 37 | | | | | 7 | | | | | 2 | | | | | 564 | | | | |
| UNCLASSIFIED | | | | | | 440 | | | | | 69 | | | | | | | | | | 1 | | | | |
| GRAND TOTAL | 3 | | | | | 477 | | | | | 76 | | | | | 2 | | | | | 565 | | | | |

ADPH-F-EPI-16/Rev. 11-81

## TABLE 7-4 (continued)
## DISEASE INCIDENCE BY AGE GROUPS
## 1984

| AGE GROUP | Typhoid Fever | | | | | Typhus, Murine | | | | | Diphtheria | | | | | Poliomyelitis | | | | | Psittacosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL | WHITE | | NONWHITE | | TOTAL |
| | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | | M | F | M | F | |
| 0- 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5- 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10-14 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| 15-19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20-24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25-34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35-44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45-54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 55-64 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 65-74 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75+ | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| N.S. | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL BY RACE | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| UNCLASSIFIED | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRAND TOTAL | 2 | | | | | 0 | | | | | 0 | | | | | 0 | | | | | 0 | | | | |

ADPH-F-EPI-16/Rev. 11-81

# Family Health Administration

## FAMILY HEALTH ADMINISTRATION

During 1984 the Family Health Administration continued to provide programmatic and administrative support for local programs of services for maternity; well child; sudden infant death syndrome (SIDS); early and periodic screening, diagnosis and treatment (EPDST); family planning; cancer detection; nutrition; and supplemental foods for women, infants and children (WIC). The Family Health Administration allocates resources, develops policies and procedures for its programs, and monitors expenditures of local program activities. Standards of care have been set, and program performance and quality of services are continually evaluated. In addition the administration provides staff development, training and technical assistance for staff in Family Health Administration programs statewide.

Providing preventive health care services which improve the health of women and children in Alabama continued to be the major emphasis of the Family Health Administration. The goal of the Family Health Administration is the reduction of maternal mortality, infant mortality and handicapping conditions in children, and the early detection of female malignancies.

## BUREAU OF MANAGEMENT INFORMATION SYSTEMS

This bureau is responsible for planning for the data needs and for maintaining and monitoring the patient reporting systems of the Family Health Administration.

Emphasis continues to be placed on integrating existing systems to eliminate duplication of effort. During fiscal year 1984 the major project of the bureau was and continues to be the upgrading of the WIC data system for federal compliance requirements. The bureau continued to provide training for county health department personnel regarding administration patient reporting systems; provided area programs with technical assistance in relation to management information systems; developed data/statistical publications; and initiated computer billing for EPSDT.

## BUREAU OF PLANNING AND DEVELOPMENT

The Bureau of Planning and Development is setting goals and objectives which will be compatible with the mission of the Family Health Administration. The bureau is responsible for developing and establishing effective outreach of all programs in Family Health Administration, assisting in the development of the state Family Health Administration program plans, submitting reports, drafting required grant applications, and coordinating Family Health Administration activities with agencies outside the health department. The bureau developed a slide/tape presentation of the Family Health Administration and the services and the goals of the various programs within the administration.

This bureau has responsibility for staff support and liaison with the Alabama Advisory Council on Maternal and Child Health. This council meets quarterly and makes recommendations for the delivery of health services to Alabama's mothers and babies through perinatal, family planning, maternity, well child and nutrition programs.

This bureau also has responsibility for staff support and liaison with two other advisory councils concerned with programs in the Family Health Administration. The State Perinatal Advisory Committee in quarterly meetings determines through its regional advisory committees how and where perinatal appropriations from the Special Education Trust Fund will be spent in health services and follow-up evaluations of mothers and infants, as well as in the provision of professional training for hospital staffs providing perinatal services.

The other advisory council under the staff support and liaison umbrella of this bureau is the Alabama Cancer Coordinating Council. This is a body of some 20 physicians and three lay persons who share a vested interest in what is happening around Alabama in the areas of cancer; whether in research, screening, diagnosis and treatment, public issues or professional and public education. This council meets three times each year to discuss and deliberate on matters of mutual concern, to share information, and to coordinate all cancer activities in the state of Alabama.

During fiscal year 1984 the Bureau of Planning and Development also designed and produced a Family Health Administration logotype for use in all administration publications, pamphlets and slide presentations, and participated in several meetings with other organizations and state level agencies with a view toward raising the visibility of the administration's programs.

## BUREAU OF QUALITY ASSURANCE

The Bureau of Quality Assurance is responsible for determining the quality of care provided in all Family Health Administration programs statewide and for verifying that each county program is providing services which are in compliance with federal and state regulations, guidelines and standards of care.

On-site evaluations are made by a quality assurance team, which is usually composed of an administrator, a nurse and a nutritionist. The bureau is also responsible for developing protocols, coordinating nutrition services and providing training.

During fiscal year 1984 on-site evaluations were conducted in 37 counties and in three independent agencies. Programs evaluated included 20 maternity programs, 21 child health programs, 30 family planning programs, 16 WIC programs and 10 cancer detection programs. Fifty percent of Family Health Administration programs are targeted for on-site evaluations during fiscal year 1985.

As a basis for training, a statewide needs assessment was conducted for all Family Health Administration programs. In response to training needs identified on the assessment, 24 training programs were conducted including 18 workshops specifically for family planning staff, three programs specifically for WIC nurses and nutritionists, one maternal and child health program, and a training session for the Family Planning Committee of the Alabama Advisory Council on Maternal and Child Health. Ten nurse practitioners were involved in training in the jet wash component of the Cancer Detection Program. The Bureau of Quality Assurance also provided clinical experiences for Troy State University's graduate program in nursing.

## BUREAU OF RESOURCE MANAGEMENT

The goal of the Bureau of Resource Management is to provide the Family Health Administration director with financial data on a systematic basis to be utilized for more efficient program management.

During fiscal year 1984 the Bureau of Resource Management revised budget and personnel forms used in the program planning and monitoring charts, streamlined the budget and revision process, and provided technical assistance to Family Health Administration program directors and area administrators.

### TABLE 8-1
### CANCER DETECTION
### FISCAL YEAR 1984

| Areas | Patients Served |
|---|---|
| PHA I | 1,772 |
| PHA II | 927 |
| PHA III | 1,532 |
| PHA IV | 3,529 |
| PHA V | 5,132 |
| PHA VI | 2,506 |
| STATE | 15,348 |

### Maternal and Child Health

The purpose of the Maternal and Child Health Program is to assure that mothers and children have access to quality health care so that infant mortality, preventable diseases and handicapping conditions among children are reduced. Services are targeted to the medically indigent population in Alabama; and they focus on providing preventive services for children, and on prenatal and postpartum care for women.

### TABLE 8-2
### MATERNITY CARE
### FISCAL YEAR 1984

| Areas | Patients Served |
|---|---|
| PHA I | 1,173 |
| PHA II | 1,196 |
| PHA III | 6,706 |
| PHA IV | 1,724 |
| PHA V | 3,319 |
| PHA VI | 4,052 |
| STATE | 18,170 |

In fiscal year 1984 the Maternal and Child Health Program provided health care for 18,170 pregnant women in 54 county health departments across the state. These comprise more than 31 percent of all women in Alabama who had babies during 1984. They made a total of 99,462 prenatal visits to local public health clinics. Of these women, 32 percent were seen during the first trimester, and 9 percent were seen in the third trimester.

Well child services were provided to 66,770 children. Of this number, 22,714 were infants, and 24,243 were from 1 to 4 years of age. The number served in each public health area is given in the following table. These patients made a total of 117,387 visits to clinics in county health departments.

### TABLE 8-3
### WELL CHILD SERVICES
### FISCAL YEAR 1984

| Areas | Patients Served |
|---|---|
| PHA I | 4,292 |
| PHA II | 1,953 |
| PHA III | 42,670 |
| PHA IV | 4,915 |
| PHA V | 7,443 |
| PHA VI | 5,497 |
| STATE | 66,770 |

### Family Planning

Comprehensive family planning services represent an attempt to deal with health, social and economic problems associated at least in part with the occurrence of unwanted and mistimed pregnancies in Alabama.

For many poor people in Alabama entry into a system of health care begins in the family planning clinic. Screening and referrals for problems as well as health education and counseling are components of family planning clinic services in addition to a physical examination. Related laboratory tests such as pap smears and venereal disease testing are provided, as well as the contraceptive supplies. These services enable women to space or prevent pregnancies and achieve improved health through the prevention of high-risk pregnancy; and early detection of breast cancer, cervical cancer, venereal disease, hypertension and other problem conditions.

The Statewide Family Planning Program funds programs in each of the county health departments throughout the state. Medical family planning services are available at 87 clinic sites and numerous other satellite clinics where patients can receive family planning services.

The overwhelming majority (more than 92 percent) of patients served in family planning clinics are low income, and those under the official poverty level receive free services. Those with marginal incomes pay on a sliding scale, and those above 250 percent of poverty pay the full cost of care. Whenever possible, third-party reimbursement (such as Medicaid) is also sought. Among low income women there has been a marked increase in the use of effective contraceptive methods, virtually eliminating previous differences in method use between the poor and the more affluent.

During fiscal year 1984 there were 84,635 patients provided medical family planning services. These patients made 212,585 clinic visits in which the following services were provided: 71,084 pap smears; 82,107 bimanual pelvic examinations; 69,851 breast exams for cancer with instructions in breast self-examination; 206,674 blood pressure determinations; 8,765 pregnancy tests; 34,530 syphilis tests; 76,278 gonorrhea cultures; 64,261 urine tests for sugar and acetone; 60,321 hemoglobin or hematocrits; 9,451 sickle cell tests. There were also 12,240 patients referred to private physicians for suspected medical problems. Referrals to social agencies, infertility counseling/referral and follow-up services were also provided.

Each dollar invested in family planning by the government in any one year yields a savings of two dollars in health and welfare costs associated with unintended births the following year. The cost/benefit ratio is even greater among teenagers—a three dollar savings for every dollar spent.

Family planning's commitment continues to be based on three fundamental premises:

(1) That all persons should be able to determine freely the number and spacing of their children;
(2) That the timing and spacing of births is directly related to the health of mothers and children;
(3) That the availability of family planning services to low income persons can be instrumental in preventing or alleviating poverty and dependency.

**Perinatal**

Like other Family Health Adminstration programs this activity proposes to reduce maternal and infant mortality and handicapping conditions. The Alabama Legislature appropriated $791,706 for the Perinatal Program to use throughout the state. Eighteen perinatal projects were coordinated through the State Perinatal Advisory Committee. These projects provided follow-up evaluation and health services for mothers and infants. The projects also provided quarterly professional training for staffs of all hospitals which provided perinatal services.

There were 3,746 infants who received health evaluations and 4,092 mothers and infants who benefited from inpatient or outpatient hospital care, while 6,981 hospital staff members received professional perinatal training in fiscal year 1984.

**WIC**

The Special Supplemental Food Program for Women, Infants, and Children (WIC program) is administered by the Family Health Administration and funded by the United States Department of Agriculture. All county health departments except one conduct WIC programs. Lowndes County citizens are served by the Lowndes County Health Services Incorporation.

The WIC program in Alabama provided supplemental food to 139,047 individuals during fiscal year 1984. An average of 14,584 women, 20,636 infants and 36,154 children were served each month. The average total monthly participation was 71,373 with each participant receiving an average of $27.89 worth of food.

TABLE 8-4
WIC SERVICES
FISCAL YEAR 1984

| Areas | Patients Served |
|---|---|
| PHA I | 19,311 |
| PHA II | 8,030 |
| PHA III | 31,378 |
| PHA IV | 15,885 |
| PHA V | 33,382 |
| PHA VI | 31,061 |
| STATE | 139,047 |

All priorities were served during the year and no limitations were placed on local agencies as to the number of individuals who could be served.

Applicants must meet income criteria and must be at a risk of developing health problems. They are evaluated by physicians, nutritionists or nurses to determine if they are at nutritional risk. The criteria for determining this include risk of iron deficiency anemia, inappropriate growth or weight gain, complications during a previous pregnancy, nutrition-related medical conditions and inappropriate dietary patterns. If applicants meet all nutritional risk criteria and fall within income guidelines, they are certified to participate in the program.

Participants receive foods which are high in the nutrients needed by pregnant and nursing women, infants and children. These include such foods as iron fortified infant formula, iron fortified cereal, juices high in ascorbic acid, milk, eggs, cheese and peanut butter. These foods help provide the nutrients essential during early development and growth and supplement other foods purchased by the participant to complete the diet. Participants are referred to appropriate public health clinics or private providers for the health care they need. One of the major contributions of the WIC program is that it draws participants into the health care system.

In the local program areas, nutritionists and nurses provide the mandated nutrition education component of the WIC program. These staff members discuss the nutritional needs of the participants and the supplemental foods as a means of meeting these needs. They provide information on the best use of the foods and explain the importance of health care. Nutrition education encounters for fiscal year 1984 number approximately 258,084. These represent both individual and group encounters.

The state and area nutrition plans of WIC emphasize the assessment of needs in the local programs and the development of strategies to meet the identified needs. In 1984 two workshops were held to update the local professionals. One was on nutrition counseling strategies. Another workshop was devoted to learning more about breastfeeding management and encouragement. The commitment of WIC continues to be to increase the incidence of breastfeeding among the health department clients.

WIC VOUCHERS
BUY
CERTAIN FOODS

The program has contacts with more than 900 grocery stores and has developed a vendor fraud detection unit in order to detect and determine the extent of fraud, waste and abuse. Compliance buys are being made when indicated and violators are being sanctioned based on a newly developed disqualification point system.

### TABLE 8-5
### STATEWIDE PROGRAM STATISTICS
### FISCAL YEAR 1984

| Area | Family Planning | | Maternity | | Well Child | | Cancer Detection | | WIC |
|---|---|---|---|---|---|---|---|---|---|
| | Patients | Visits | Patients | Visits | Patients | Visits | Patients | Visits | Patients |
| PHA I | 12,432 | 30,512 | 1,173 | 6,802 | 4,292 | 9,701 | 1,772 | 1,770 | 19,311 |
| PHA II | 5,267 | 13,927 | 1,196 | 7,336 | 1,953 | 4,509 | 927 | 993 | 8,030 |
| PHA III | 21,633 | 54,015 | 6,706 | 40,281 | 42,670 | 69,744 | 1,532 | 1,628 | 31,378 |
| PHA IV | 9,783 | 25,272 | 1,724 | 9,632 | 4,915 | 8,396 | 3,529 | 3,745 | 15,885 |
| PHA V | 18,805 | 46,315 | 3,319 | 16,494 | 7,443 | 14,849 | 5,132 | 5,314 | 33,382 |
| PHA VI | 16,715 | 43,544 | 4,052 | 18,917 | 5,497 | 10,188 | 2,506 | 2,680 | 31,061 |
| STATE | 84,635 | 212,585 | 18,170 | 99,462 | 66,770 | 117,387 | 15,348 | 16,130 | 139,047 |
| Area III w/o Jefferson | 5,458 | 14,600 | 1,081 | 6,211 | 1,431 | 2,666 | 1,532 | 1,628 | 7,900 |
| Area VI w/o Mobile | 9,740 | 30,036 | 1,711 | 8,305 | 1,872 | 4,535 | 2,506 | 2,680 | 19,907 |

# Bureau of Preventive Health Services

# BUREAU OF PREVENTIVE HEALTH SERVICES

## Division of Hypertension

The Alabama Hypertension Control Program again in 1984 received a low priority rating by the Program Performance Committee. Criteria used by the committee in determining program importance included population in need, emphasis on prevention, communicability and availability of alternative sources of care. Despite this designation, the program had one of its most productive years in terms of organization and support of area and county activity.

Prevention of cardiovascular disease through control of high blood pressure not only saves lives and helps prevent people from entering the medical care system but also saves countless millions in federal expenditures as well as individual out-of-pocket expenses. Federal expenditures in Alabama have been estimated by the Division of Hypertension to exceed $134 million because of the complications of uncontrolled blood pressure. These are not prevention dollars.

Hypertension control programs are among the most cost-effective preventive health activities in public health and Alabama's program is no exception, based on annual cost comparisons with those found in medical literature. For this reason the program was proud to have input into the laudable Alabama Medicaid Agency's current effort to seek solutions to preventive and cost-saving measures.

During fiscal year 1984, the Hypertension Control Program fulfilled a mandate of eight recommendations proposed in late 1982 by a Task Force on Hypertension composed of medical professionals from the private and public sector. Chief among those recommendations was the development of standardized screening, educational and referral guidelines statewide. In order to avoid recommending such guidelines and then needing to update them in less than a year, the program awaited the release of the 1984 Report of the Joint National Committee on Detection, Evaluation and Treatment of High Blood Pressure. Such periodic reports are considered by the experts to be essential to hypertension control.

Drawing heavily from this report, but adapted to the state's circumstances, Statewide High Blood Pressure Recommendations for Screening, Education and Referral were approved by the state health officer and forwarded to each county unit. This 14-page guideline sets forth uniform recommendations in such areas as screening, blood pressure measurement, classification of pressure, confirmation and follow-up, normal limits in children, referral, goals of therapy, and education for long-term adherence. Additionally, these guidelines include priority options for hypertension screenings outside of health department facilities and a generic listing of high blood pressure resources and settings, thereby responding to two other committee suggestions.

Another priority recommendation was increased involvement with the Department of Education in encouraging that risk reduction concepts be incorporated into their health education courses. "The 1982 Curriculum Guide for Health Education in Alabama Schools" made no mention of hypertension. The Hypertension Control Program had a representative on the Heart Association Hypertension Committee. This committee approved and distributed a cardiovascular health curriculum titled "Putting Heart Health Into Your Curriculum" to every health education teacher in the state of Alabama during 1984. Use of this teaching document, which contained a unit on hypertension, was approved by the Department of Education. Additionally, the hypertension program helped design and facilitate the printing of a companion hypertension pamphlet that was sent for every tenth grade student in the Alabama school system. Funding for this health education tool was a joint effort. As an important aside, this new initiative spawned the idea among other health interest organizations to begin work on a curriculum guide. Such efforts by experts will enhance the health education teaching of Alabama students.

Another task force recommendation implemented and followed was the continuance but not expansion of the treatment program, since it was felt that future funding would not allow it. Program medication patients did increase in fiscal year 1984, but not above the fiscal year 1982 level permitted. At the time of the Task Force Report 2,510 low income patients were receiving medication and at the end of fiscal year 1984 there were 2,418.

Provision of in-service education and patient education materials were two other recommendations which are ongoing services of the division.

**Education/Publicity and In-service Education—** Promotion of better blood pressure control, education and awareness through support to county units was emphasized in fiscal year 1984. The first initiative of the year was a mailing to all counties reinforcing the availability of hypertension-specific health educational materials with a description of target audience, use in the control process, educational level and overall content. In response, counties order several hundred pamphlets. In April, the division produced a self-adhesive piece for recording pressures and important emergency phone numbers as a service to counties and again several hundred were requested.

Public and county staff education activities reach a peak level every year in May, which is National High Blood Pressure Month. Although this is a focal month, much preparation goes on in the months prior and months after.

Again, in fiscal year 1984 the program mailed cover letters and High Blood Pressure Month kits to each health department. These kits have many suggestions for promoting hypertension education and awareness along with practical materials such as news releases, artwork, reproducible pamphlets and many other helpful community interest items.

Each unit was also sent a 24-page "Physician Guide: How to Help Your Hypertensive Patients Stop Smoking." This guide, while primarily designed for physician use, could also be used by other health professionals. Having 5 percent of one's smoking patients quit does not seem impressive, but that 5 percent success rate nationally would represent approximately 2 million ex-smokers.

Perhaps the key event each year is the Alabama Statewide Hypertension Conference which this past year was held in Mobile. The conference theme was "High Blood Pressure Control—Share the Success," with the focus being patient and provider communication to promote compliance. There were 111 registered participants with 48 professionals applying for continuing education credits as a result of attending this day-and-a-half conference. The largest groups attending were nurses (37 percent), physicians (20 percent), followed by pharmacists, dietitians, and many other professional categories. No other state has been able to equal this effort of successive annual conferences.

A set of hypertension transparencies was also developed and used for the annual public health nursing orientation program. Work also progressed on two copies of a slide/tape presentation to be made available to all counties concerning the Joint National Committee Report on Detection, Evaluation and Treatment of High Blood Pressure.

**Blood Pressure Therapy Clinics**—During the period between 1975 and 1981, 10 Alabama counties initiated comprehensive high blood pressure control medication programs. This was during a period of increasing funding and before Task Force recommendations that expansion of the clinic concept probably could not be permitted owing to funding. Counties with such clinics include Bibb, Calhoun, Chambers, Coffee, Dallas, DeKalb, Geneva, Greene, Pickens and Randolph. The largest is in Dallas County.

As mentioned earlier, medication patient numbers increased in fiscal year 1984 to a level of 2,418, yet still below the maximum allowable. Of these medication patients, 439 were fully under the program for care and 1,779 others received program medication and monitoring also, but were jointly supervised with private physicians.

Also increased in fiscal year 1984 were the 2,046 referrals as compared to 1,611 a year earlier. Newly detected hypertensives remained identical at 253. This figure does not represent those found elevated, rather those elevated who were never before told they might have a problem.

Visits by patients on program medication fell slightly to 16,577 or 6.8 visits per year. More important, however, was the fact that the blood pressure control rate increased to 74.9 percent in 12,428 controlled visits.

During fiscal year 1984 the percentage of blacks screened was 27.9 percent among 5,141 individuals never before screened by the program. Total client contact was 39,250 with screenings among nonpatients numbering 14,114.

Included in Program Performance Reports for the entire state was hypertension referral and total service data for the hypertension-funded counties previously mentioned and for counties not funded, but not maternal and child health, cancer detection or family planning, which do a heavy amount of blood pressure screening. Total referals for hypertension were 3,156 and total hypertension services to clients reached 81,044 visits. With more refinement and understanding of these reports, data reflecting statewide effort is expected to increase greatly. Public Health Area IV is a leader in the state in these efforts.

As fiscal year 1984 came to a close many new county support activities had been achieved. Also the program gained a greater realization that the only hope of achieving higher prioritization is through counties gaining a greater appreciation of support services the program can offer.

## Division of Immunization

Despite skyrocketing vaccine costs and frustrating delays in receipt of vaccines from the manufacturers, the Division of Immunization continued progress toward its ultimate goal of eliminating the occurrence of vaccine-preventable diseases in Alabama for the susceptible population ages 0-15 years.

The three new program activities initiated during 1983 were continued or expanded during 1984. Educating college and university administrators about the importance of immunizing college students continued to be a priority. These administrators were encouraged, either through mailed reminders or by on-campus visits from program staff, to voluntarily implement preadmission immunization requirements.

By the close of 1984 the unified medical record immunization recall system was ready for statewide implementation. A three-county pilot test conducted during 1984 showed that the new sticker system provided a convenient means of identifying both active immunization patients for daily record keeping and audits and delinquent patients for recall into an immunization clinic.

The third new program begun in 1983, alerting hospital emergency room and infection control personnel to the importance of recognizing cases of vaccine-preventable diseases and of reporting them promptly to the county health department, was combined with another new program begun in 1984. Program representatives began to systematically contact hospital administrators about the possibility of implementing pre-employment measles and rubella immunization requirements. All other hospital contacts including the new mother education program were made during the same visit. Elimination of rubella is a nationwide priority for 1984-1985. The assessment of hospital administrators' attitudes toward these immunization requirements will help with future program planning.

The need for hospital personnel to be immunized was demonstrated dramatically in July 1984. Two employees of a large central Alabama hospital were diagnosed as having rubella. This necessitated intense epidemiologic investigation of all other hospital personnel and especially of patients who had come in contact with the infected employees. A third case temporally related to the hospital outbreak was diagnosed in a pregnant day care center worker.

In addition to these three cases of rubella, one additional case of rubella, three imported measles cases, two mumps cases and four pertussis cases were reported during 1984.

Another new program was initiated during 1984. As part of a cooperative agreement between the U.S. Public Health Service's Bureau of Health Care Delivery and Assistance (BHCDA) and the Centers for Disease Control's Division of Immunization, a program representative visited all BHCDA-funded immunization clinics to ensure that they were obtaining vaccines in the most cost-effective manner, that they were accounting for State Health Department-provided vaccines properly and that they were reporting suspect cases of vaccine-preventable diseases promptly. Most of these 25 grantees visited were doing an excellent job. Unfortunately vaccine shortages during the latter part of 1984 prevented the Immunization Program from being able to provide vaccine at previous levels in all areas of the state.

Establishment of a working relationship with the state's Head Start programs was the last new program activity begun during 1984. As a condition for continued funding, the Division of Immunization began contacting each Head Start administrative office to ensure that proper immunization records were being kept on each child and that each child was given the opportunity to be adequately immunized. This activity was continued into 1985.

All of these new and continuing program activities were developed to augment mainstream county health department immunization clinics. Until every preschool-aged child is brought into a routine and systematic immunization delivery system, the current 80 percent levels among 2 year olds (children old enough to have completed the basic series) cannot improve significantly.

Table 9-1 shows the immunization levels among those preschool-aged children attending the state's more than 900 licensed day care facilities. As indicated in the table most children in the facilities were appropriately immunized for their age groups. The preschool immunization record, which was field tested in 1983, was adopted by most day care centers statewide in 1984. Center operators have found these useful in determining when boosters are needed and to alert parents.

Table 9-2 shows complete results of the 1984 school entrance survey by public health area. Alabama's school children continue to be well immunized. No spread of vaccine-preventable diseases could be associated with the classroom setting in 1984.

Table 9-3 shows 1984 usage levels for DTP (diphtheria, tetanus and pertussis) and other vaccines. Continued high levels of vaccine usage in public health clinics account further for low disease incidence. Future inability to obtain vaccine could jeopardize Alabama's fine record.

Vaccine availability and price increases were major threats to the division's continuing ability to maintain adequate supplies of vaccine for county health department clinics. By midyear two of the three U.S. manufacturers of DTP vaccine had stopped distribution of DTP to health care providers. They cited liability problems associated with recent adverse publicity about possible side effects of the pertussis component as the main reason for ceasing distribution. One of the manufacturers held the Alabama Department of Public Health's 1984 DTP contract at 63 cents a dose. The remaining manufacturer agreed to honor the contract price but being unable to meet demands, began to ship DTP vaccine to Alabama and to other states on a first-come-first-served allocation basis. This created spot shortages of DTP vaccine in some public health areas. The situation became more critical when the only two batches of DTP vaccine scheduled for shipment in February 1985 failed to pass quality control standards. At the close of 1984 the Division of Immunization could not project when it would receive another shipment of DTP vaccine.

Furthermore the sole manufacturer of DTP vaccine anticipated 1985 prices of $2.80 per dose making it necessary to seek additional funding sources. The state health officer authorized an emergency change in the DTP immunization schedule so that the remaining inventories of DTP vaccine would be targeted primarily for infants needing the initial series of three doses. The vaccine shortage was the single most critical issue in 1984.

# TABLE 9-1
## SCHOOL ENTRANCE IMMUNIZATION SURVEY
## 1984

| | | | | 1983 |
|---|---|---|---|---|
| County | Enrollment | Number with IMM-50* | Percent with IMM-50* | Percent with IMM-50* |
| **PHA I** | | | | |
| Colbert | 1,650 | 1,613 | 97.76 | 97.05 |
| Cullman | 1,940 | 1,880 | 96.91 | 96.38 |
| Franklin | 738 | 730 | 98.92 | 99.87 |
| Jackson | 7,900 | 7,825 | 99.05 | 98.32 |
| Lauderdale | 2,491 | 2,445 | 98.15 | 98.08 |
| Lawrence | 1,083 | 1,074 | 99.17 | 98.63 |
| Limestone | 1,605 | 1,521 | 94.77 | 96.25 |
| Madison | 6,869 | 6,725 | 97.90 | 98.16 |
| Marion | 940 | 932 | 99.15 | 98.89 |
| Marshall | 1,625 | 1,564 | 96.25 | 98.52 |
| Morgan | 3,110 | 3,087 | 99.26 | 94.47 |
| Winston | 754 | 737 | 97.75 | 98.29 |
| Total | 30,705 | 30,133 | 98.14 | 98.02 |
| **PHA II** | | | | |
| Bibb | 549 | 549 | 100.00 | 100.00 |
| Fayette | 520 | 519 | 99.81 | 99.46 |
| Greene | 604 | 599 | 99.17 | 99.07 |
| Hale | 627 | 627 | 100.00 | 98.37 |
| Lamar | 536 | 532 | 99.25 | 97.47 |
| Pickens | 820 | 816 | 99.51 | 99.00 |
| Tuscaloosa | 4,490 | 4,433 | 99.76 | 98.72 |
| Total | 8,146 | 8,075 | 99.13 | 98.79 |
| **PHA III** | | | | |
| **CAPHR** | | | | |
| Blount | 954 | 951 | 99.69 | 98.69 |
| Chilton | 1,107 | 1,102 | 99.55 | 99.70 |
| St. Clair | 1,400 | 1,383 | 98.79 | 97.12 |
| Shelby | 2,379 | 2,361 | 99.24 | 96.48 |
| Walker | 2,274 | 2,247 | 98.81 | 98.57 |
| Total | 8,114 | 8,044 | 99.14 | 97.89 |
| **Jefferson** | 23,688 | 22,629 | 95.53 | 97.42 |
| **PHA IV** | | | | |
| Calhoun | 3,367 | 3,310 | 98.31 | 98.99 |
| Chambers | 1,680 | 1,671 | 99.46 | 99.23 |
| Cherokee | 528 | 504 | 95.45 | 97.92 |
| Clay | 538 | 536 | 99.63 | 98.73 |
| Cleburne | 398 | 393 | 98.74 | 98.06 |
| Coosa | 322 | 318 | 98.76 | 99.65 |
| DeKalb | 1,629 | 1,588 | 97.48 | 97.00 |
| Etowah | 3,020 | 2,995 | 99.17 | 99.02 |
| Randolph | 608 | 601 | 98.85 | 99.03 |
| Talladega | 2,393 | 2,366 | 98.87 | 98.75 |
| Tallapoosa | 1,443 | 1,424 | 98.68 | 99.21 |
| Total | 15,926 | 15,706 | 98.62 | 98.74 |

## TABLE 9-1 (continued)
## SCHOOL ENTRANCE IMMUNIZATION SURVEY
## 1984

| | | | | 1983 |
|---|---|---|---|---|
| County | Enrollment | Number with IMM-50* | Percent with IMM-50* | Percent with IMM-50* |
| **PHA V** | | | | |
| Autauga | 1,226 | 1,205 | 98.29 | 98.87 |
| Barbour | 1,056 | 1,052 | 99.62 | 99.77 |
| Bullock | 450 | 449 | 99.78 | 99.20 |
| Butler | 906 | 896 | 98.90 | 99.14 |
| Coffee | 1,241 | 1,234 | 99.44 | 98.77 |
| Covington | 1,301 | 1,280 | 98.39 | 99.18 |
| Crenshaw | 465 | 454 | 97.63 | 98.05 |
| Dale | 1,640 | 1,597 | 97.38 | 97.59 |
| Elmore | 1,239 | 1,209 | 97.58 | 99.16 |
| Geneva | 718 | 710 | 98.89 | 99.32 |
| Henry | 617 | 614 | 99.51 | 99.20 |
| Houston | 3,248 | 3,240 | 99.75 | 98.71 |
| Lee | 2,588 | 2,557 | 98.80 | 99.43 |
| Lowndes | 453 | 445 | 98.23 | 98.23 |
| Macon | 1,293 | 1,274 | 98.53 | 98.11 |
| Montgomery | 8,310 | 8,165 | 98.26 | 97.79 |
| Pike | 1,210 | 1,197 | 98.93 | 99.47 |
| Russell | 1,862 | 1,831 | 98.34 | 98.59 |
| Total | 29,823 | 29,409 | 98.61 | 98.51 |
| **PHA VI** | | | | |
| Baldwin | 2,845 | 2,812 | 98.84 | 98.67 |
| Choctaw | 608 | 595 | 97.86 | 99.50 |
| Clarke | 1,110 | 1,084 | 97.66 | 98.28 |
| Conecuh | 592 | 592 | 100.00 | 98.61 |
| Dallas | 2,347 | 2,303 | 98.13 | 97.63 |
| Escambia | 1,501 | 1,452 | 96.74 | 96.82 |
| Marengo | 973 | 960 | 98.66 | 99.29 |
| Monroe | 661 | 651 | 98.49 | 98.93 |
| Perry | 525 | 520 | 99.05 | 99.81 |
| Sumter | 586 | 577 | 98.46 | 98.37 |
| Washington | 674 | 660 | 97.92 | 98.58 |
| Wilcox | 757 | 717 | 94.72 | 98.89 |
| Total | 13,179 | 12,923 | 98.06 | 98.44 |
| **Mobile** | 15,593 | 15,324 | 98.27 | 98.55 |
| STATE TOTAL | 145,174 | 142,243 | 97.98 | 98.25 |

*IMM-50—Certificate of Immunization (at least 3 DTP injections, 3 polio doses, 1 measles, 1 rubella and 1 mumps).

## TABLE 9-2
## VACCINE USAGE
## 1975-1984

| Year | Diphtheria | Tetanus | Pertussis | Polio | Measles | Rubella | Mumps |
|---|---|---|---|---|---|---|---|
| 1975 | 197,090 | 209,602 | 170,609 | 194,778 | 50,614 | 51,106 | 0 |
| 1976 | 183,982 | 196,174 | 154,401 | 173,260 | 43,299 | 43,535 | 0 |
| 1977 | 202,468 | 213,344 | 172,820 | 191,293 | 45,247 | 42,939 | 15,053 |
| 1978 | 321,452 | 333,889 | 164,901 | 336,955 | 125,833 | 64,322 | 219,676 |
| 1979 | 208,248 | 208,248 | 155,379 | 160,466 | 79,862 | 61,844 | 96,263 |
| 1980 | 356,499 | 356,499 | 175,325 | 311,826 | 152,989 | 161,307 | 219,731 |
| 1981 | 187,738 | 187,738 | 156,600 | 183,040 | 42,759 | 43,889 | 46,494 |
| 1982 | 184,378 | 184,378 | 159,521 | 175,536 | 42,311 | 42,608 | 42,908 |
| 1983 | 184,825 | 184,825 | 158,924 | 167,593 | 40,310 | 41,017 | 40,963 |
| 1984 | 177,076 | 177,076 | 154,853 | 157,725 | 39,673 | 40,168 | 40,168 |

## TABLE 9-3
## DAY CARE CENTER MAIL SURVEY
## BY PUBLIC HEALTH AREA
## 1984

| PHA | Centers Contacted | Centers Responding | Age Categories | No. Adequately Protected | Total No. Children | Percent |
|---|---|---|---|---|---|---|
| PHA I | 146 | 146 | < 2 | 849 | 933 | 91.0 |
| | | | 2-5 | 6,029 | 6,265 | 96.2 |
| PHA II | 55 | 55 | < 2 | 276 | 323 | 85.4 |
| | | | 2-5 | 2,195 | 2,266 | 96.9 |
| PHA III | 39 | 39 | < 2 | 249 | 315 | 79.0 |
| | | | 2-5 | 1,181 | 1,255 | 94.1 |
| JEFFCO | 176 | 174 | < 2 | 1,135 | 1,295 | 87.6 |
| | | | 2-5 | 6,647 | 7,113 | 93.4 |
| PHA IV | 97 | 69 | < 2 | 301 | 325 | 92.6 |
| | | | 2-5 | 3,306 | 3,438 | 96.2 |
| PHA V | 223 | 223 | < 2 | 1,215 | 1,374 | 88.4 |
| | | | 2-5 | 8,004 | 8,433 | 94.9 |
| PHA VI | 82 | 82 | < 2 | 335 | 383 | 87.5 |
| | | | 2-5 | 2,858 | 3,035 | 94.2 |
| MOBILE | 100 | 81 | < 2 | 617 | 752 | 82.0 |
| | | | 2-5 | 3,385 | 3,529 | 95.9 |
| | | | < 2 | 4,977 | 5,700 | 87.3 |
| SUB TOTAL | | | 2-5 | 33,605 | 35,334 | 95.1 |
| GRAND TOTAL | 918 | 869 | < 2 | | | |
| | | | 2-5 | 38,582 | 41,034 | 94.0 |

## Division of Tuberculosis Control

There were 565 new cases of tuberculosis reported in Alabama during 1984. The total cases reported represent an approximate 8 percent increase compared to the 523 cases reported in 1983. New tuberculosis case rates per 100,000 population increased by 7 percent, from 12.8 in 1983 to 13.7 in 1984. Of the 565 new cases reported, 540 or 95.6 percent were confirmed with positive bacteriological findings.

Extrapulmonary cases represented 10 percent of the total cases reported. Lymphatic, pleural and miliary cases represented nearly two-thirds of the extrapulmonary cases reported. Four tuberculous meningitis cases were reported during the year.

Based on the latest provisional information from the Centers for Disease Control, Alabama ranked eleventh in the nation in new tuberculosis case rates. The southeastern United States or PHS Region IV states continue to have the highest tuberculosis case rates per 100,000 population and to report more tuberculosis cases than any other region of the nation. The eight southeastern states continue to rank in the top 13 states in the nation having the highest tuberculosis rates.

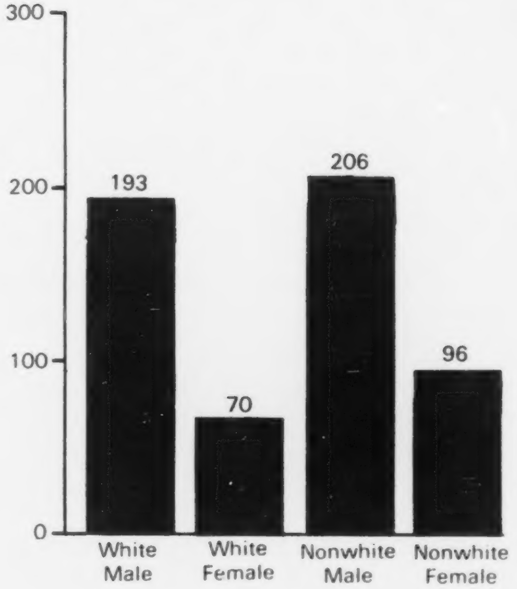
The number of new cases in the state is about evenly divided between black and white. However, case rates among blacks continue to be three times greater than that of the white population, 28.5 and 8.7 respectively. Although blacks account for only 25 percent of the state's population, they represent slightly over half of the new tuberculosis cases reported. Relative to sex and age, males and persons 45 years of age and older represent approximately two-thirds of the new cases. Case rates in 1984 by race and sex are as follows: black male, 42.1; black female, 16.8; white male, 13.1; and white female, 4.5.

The counties with the highest case rates in 1984 were Dallas, 38.8; Perry, 33.8; Macon, 29.2; Etowah, 26.1; Jackson, 23.0; and Wilcox, 21.1. Counties reporting the greatest number of cases include Jefferson with 120, Mobile with 52, Madison with 39, Montgomery with 32, Tuscaloosa with 30, and Etowah with 28. Crenshaw was the only county that reported no tuberculosis cases during the year.

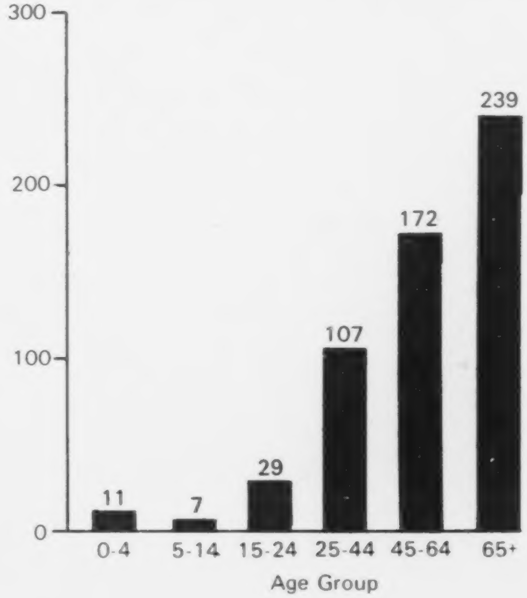
Jefferson and Mobile counties, with one-fourth of the state's population, reported approximately 30 percent of the total new cases in 1984. The latest information from CDC indicates that, among 52 cities in the United States with 250,000 or more population, Birmingham ranked thirteenth in the nation in new tuberculosis case rates. Among eight city-county areas in the nation with over 100,000 population, Mobile, Madison, and Montgomery counties ranked first, fifth and eighth respectively in TB case rates.

Graphs 9-1 through 9-7 and tables 9-4 and 9-5 describe new tuberculosis cases reported in 1984 by category.

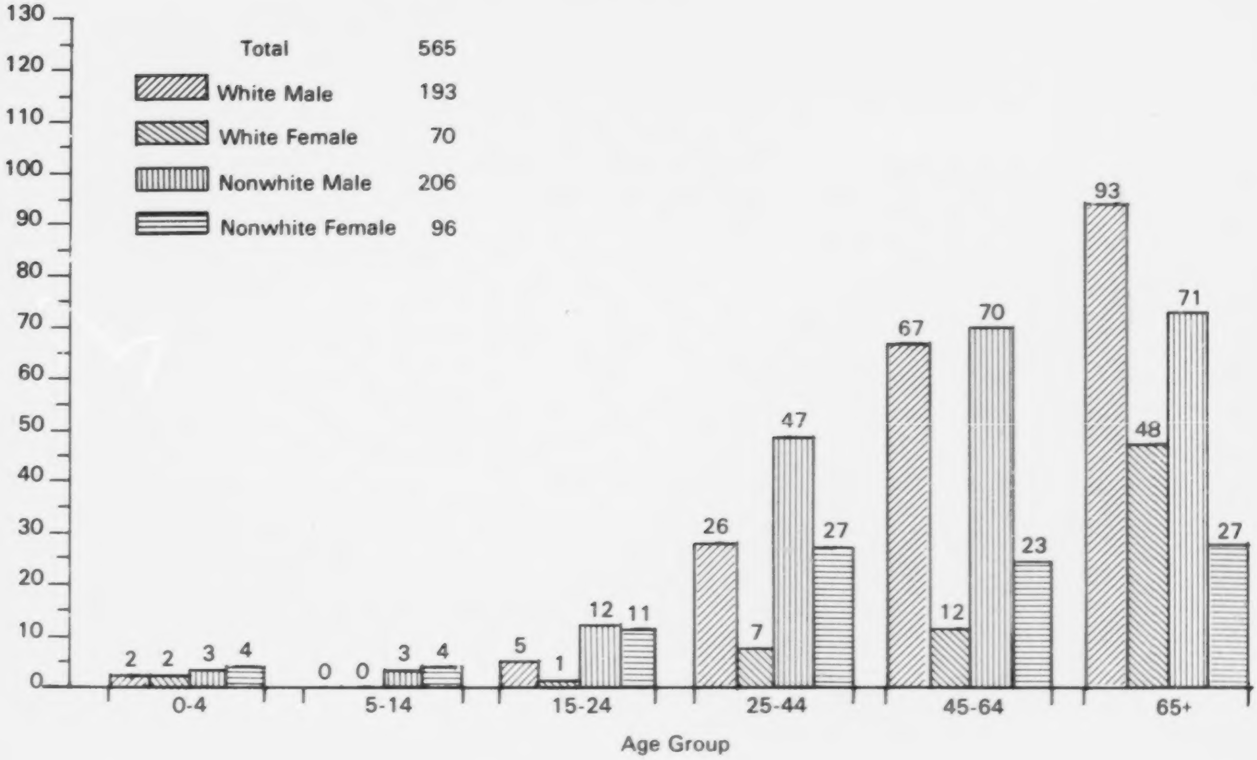
GRAPH 9-1
NEW TUBERCULOSIS CASES REPORTED BY RACE & SEX
1984



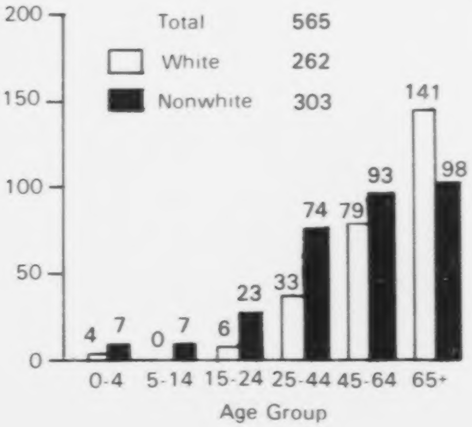
GRAPH 9-2
NEW TUBERCULOSIS CASES BY AGE GROUP
1984



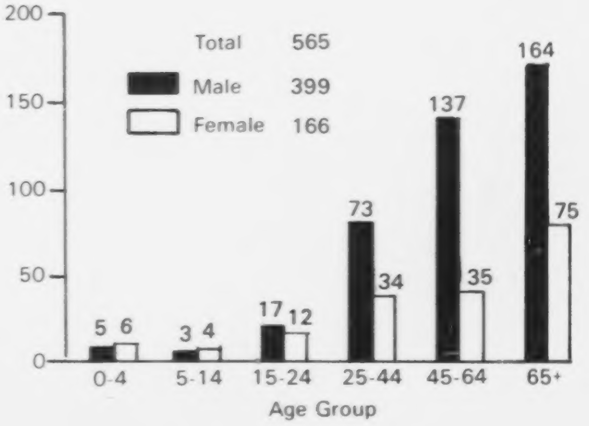
GRAPH 9-3
NEW TUBERCULOSIS CASES BY AGE GROUP, RACE & SEX
1984



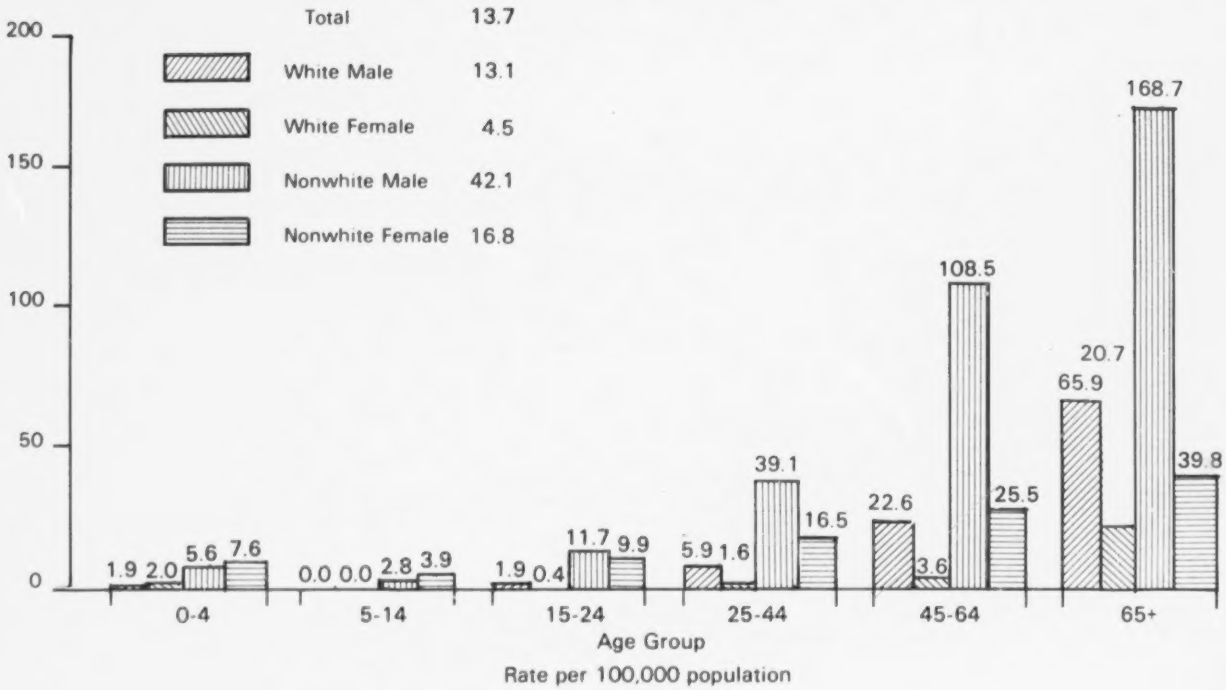
GRAPH 9-4
NEW TUBERCULOSIS CASES BY
AGE GROUP & RACE
1984



GRAPH 9-5
NEW TUBERCULOSIS CASES BY AGE GROUP & SEX
1984



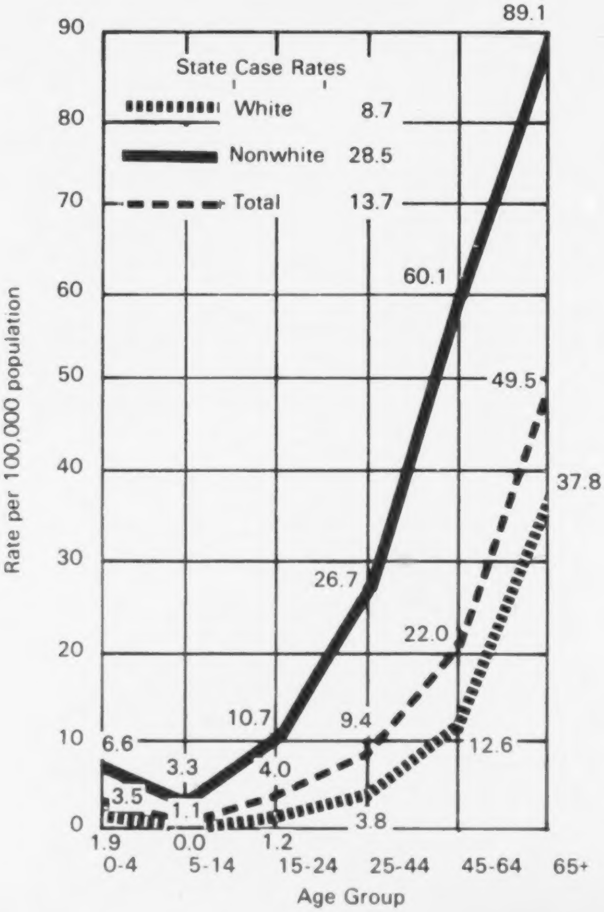
## GRAPH 9-7
## NEW TUBERCULOSIS CASE RATE BY AGE GROUP, RACE & SEX
## 1984

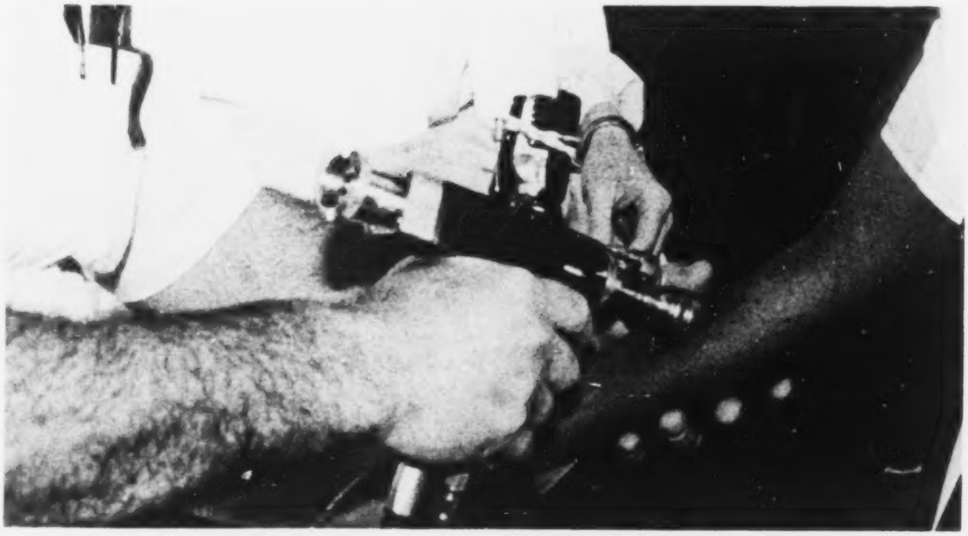


## TABLE 9-4
## NEW TB CASES BY SOURCE OF ORIGINAL REPORT
## 1984

| Source | No. Cases | Percent of Total Reported |
|---|---|---|
| Penal & Mental Institutions | 5 | .9 |
| General Hospitals | 103 | 18.2 |
| Veterans' Hospitals | 9 | 1.6 |
| County Health Departments | 364 | 64.4 |
| Out-of-State Health Departs. | 1 | 0.2 |
| Private Physicians | 22 | 3.9 |
| Death Certificates | 4 | 0.7 |
| Military | 1 | 0.2 |
| Contract Hospitals | 55 | 9.7 |
| All Other Sources | 1 | 0.2 |
| GRAND TOTAL | 565 | 100.0 |

## GRAPH 9-6
## NEW TUBERCULOSIS CASE RATES BY AGE GROUP & RACE
## 1984





## TABLE 9-5
## NEW TUBERCULOSIS CASES BY RACE AND SEX
## 1960-1984

| Year | Total | White |  |  | Nonwhite |  |  |
|---|---|---|---|---|---|---|---|
|  |  | Total | Male | Female | Total | Male | Female |
| 1960 | 1,400 | 814 | 515 | 299 | 586 | 347 | 239 |
| 1961 | 1,357 | 718 | 478 | 240 | 639 | 369 | 270 |
| 1962 | 1,266 | 698 | 479 | 219 | 568 | 336 | 232 |
| 1963 | 1,326 | 716 | 478 | 238 | 610 | 385 | 225 |
| 1964 | 1,259 | 691 | 446 | 245 | 568 | 349 | 219 |
| 1965 | 1,417 | 748 | 525 | 223 | 669 | 413 | 256 |
| 1966 | 1,214 | 565 | 398 | 167 | 649 | 387 | 262 |
| 1967 | 1,379 | 618 | 423 | 195 | 761 | 463 | 298 |
| 1968 | 1,338 | 599 | 410 | 189 | 739 | 455 | 284 |
| 1969 | 1,203 | 508 | 353 | 155 | 695 | 421 | 274 |
| 1970 | 1,166 | 543 | 383 | 160 | 623 | 400 | 223 |
| 1971 | 985 | 455 | 319 | 136 | 530 | 321 | 209 |
| 1972 | 918 | 459 | 310 | 149 | 459 | 320 | 139 |
| 1973 | 790 | 361 | 244 | 117 | 429 | 288 | 141 |
| 1974 | 785 | 351 | 239 | 112 | 434 | 293 | 141 |
| 1975 | 780 | 354 | 237 | 117 | 426 | 289 | 137 |
| 1976 | 824 | 392 | 280 | 112 | 432 | 292 | 140 |
| 1977 | 704 | 314 | 214 | 100 | 390 | 269 | 121 |
| 1978 | 672 | 317 | 229 | 88 | 355 | 236 | 119 |
| 1979 | 644 | 308 | 204 | 104 | 336 | 220 | 116 |
| 1980 | 663 | 296 | 210 | 86 | 367 | 254 | 113 |
| 1981 | 640 | 316 | 224 | 92 | 324 | 227 | 97 |
| 1982 | 631 | 299 | 219 | 80 | 332 | 235 | 97 |
| 1983 | 523 | 253 | 179 | 74 | 270 | 191 | 79 |
| 1984 | 565 | 262 | 194 | 68 | 303 | 208 | 95 |

Ten of Alabama's 67 counties represent approximately half of the state's population and almost two-thirds of the tuberculosis cases reported. These counties include: Jefferson, Mobile, Madison, Tuscaloosa, Montgomery, Etowah, Calhoun, Limestone, Lauderdale and Dallas. New TB case rates by public health area are as follows: Public Health Area I, 14.1; Public Health Area II, 17.6; Public Health Area III, 13.9; Public Health Area IV, 14.1; Public Health Area V, 10.2; and Public Health Area VI, 15.2.

At the end of the calendar year, tuberculosis prevalence reports indicated that there were approximately 900 diagnosed cases, suspects and other persons with non-tuberculous mycobacterial disease receiving multiple drug therapy and medical supervision by county health departments and contract hospitals. By continuing to adhere to the contract hospital admission criteria and through utilization of the outpatient clinics, the program was able to manage two-thirds of the new cases entirely on an outpatient basis. All cases completing 9-12 months of INH and Rifampin therapy continue to be closed to medical supervision, provided sputum cultures are negative for at least six months. Only complicated and drug resistant cases are recommended for alternative drug regimens and longer durations of treatment.

Of the total cases reported in 1984, county health departments reported 64.4 percent; contract hospitals reported 9.7 percent; private physicians reported 3.9 percent; and general hospitals reported 18.2 percent. Only four cases or less than 1 percent, were reported as a result of death certificate information. After the initial diagnosis and reporting of cases, most patients are subsequently referred to county health department clinics for medical supervision and treatment. Also, contact identification, investigation, examination and preventive treatment are provided by the clinic and outreach programs. Consequently, nearly 95 percent of the known cases, contacts and suspects in the state receive their medical supervision and treatment through public health clinics and contract hospitals.

As a result of the private laboratory reporting law, 23 laboratories reported 328 positive culture reports and 291 positive smear reports to the Tuberculosis Control Division during the year. Follow-up investigation of these private physician positive reports resulted in the reporting of 108 new tuberculosis cases. The 108 cases represented 19 percent of the total tuberculosis morbidity reported in 1984. Investigation of these reports also enabled the Tuberculosis Program to assist the physician in the treatment of the cases plus initiate epidemiological investigations, including examination and preventive treatment of contacts.

Patient compliance in taking prescribed medication continues to be the greatest problem in tuberculosis control. For this reason, supervised daily therapy and supervised intermittent therapy play a major role in tuberculosis treatment programs today. Continued efforts are made before initiation of therapy to determine which patients are most likely to be poor compliers because of problems with alcohol or other reasons. As a result, many of the problems patients are placed on some form of supervised or observed therapy.

County health departments reported 116,146 tuberculin tests performed in 1984. Of this total, 74 percent were read with 4,174 having results of 10 millimeters or greater for an overall reactor rate or infection rate of 4.87 percent. Positive tuberculin skin test rates ranged from a low of .64 percent (6 per 1,000) among persons (including contacts) from infancy to 4 years of age to 10.57 percent (111 per 1,000) for persons 45-64 years of age or older. For close contacts and other than close contacts examined in 1984, infection rates were 36.1 percent and 11.2 percent respectively. Positive skin test rates among blacks in 1984 are nearly three times as great when compared to the white population. When applying Alabama's tuberculin positive skin test rates by race and sex to the total population, the state's infected population totals 232,848 individuals. The estimated number of infected persons ranges from a low of 14,585 under 15 years of age to a high of 82,480 for persons in the 45 through 64 year old age bracket. It is estimated that 90 percent of future tuberculosis cases in Alabama will come from this reservoir of infected persons.

Table 9-6 gives tuberculosis control information by public health area and county. Table 9-7 lists the number of TB cases reported for the past 20 years.

### TABLE 9-6
### ALABAMA TB CONTROL
### 1983 and 1984

| | New TB Cases Reported | | County Rank in No. Cases Reported | New TB Case Rate per 100,000 Pop. | | Total TB Cases in File as of December 31 | | Population |
|---|---|---|---|---|---|---|---|---|
| | 1983 | 1984 | 1984 | Rate | Rank | 1983 | 1984 | July 1984 |
| **PHA I** | | | | | | | | |
| Colbert | 9 | 10 | 10 | 17.5 | 13 | 4 | 7 | 57,100 |
| Cullman | 8 | 10 | 11 | 15.1 | 17 | 5 | 6 | 66,300 |
| Franklin | 3 | 7 | 20 | 23.0 | 5 | 2 | 2 | 30,500 |
| Jackson | 3 | 8 | 18 | 13.8 | 23 | 2 | 4 | 57,800 |
| Lauderdale | 12 | 11 | 9 | 12.6 | 26 | 14 | 14 | 87,200 |
| Lawrence | 6 | 3 | 37 | 9.5 | 40 | 1 | 3 | 31,700 |
| Limestone | 12 | 8 | 16 | 16.5 | 15 | 7 | 7 | 48,400 |
| Madison | 39 | 39 | 3 | 18.5 | 10 | 27 | 28 | 211,000 |
| Marion | 2 | 4 | 31 | 11.9 | 29 | 7 | 4 | 33,500 |
| Marshall | 11 | 8 | 19 | 11.3 | 35 | 8 | 5 | 70,800 |
| Morgan | 9 | 6 | 26 | 6.2 | 53 | 14 | 5 | 96,900 |
| Winston | 3 | 1 | 60 | 4.0 | 61 | 1 | 1 | 24,700 |
| TOTAL | 117 | 115 | 2 | 14.1 | 3 | 92 | 86 | 815,900 |
| **PHA II** | | | | | | | | |
| Bibb | 0 | 2 | 40 | 11.8 | 30 | 1 | 2 | 16,900 |
| Fayette | 2 | 4 | 29 | 19.9 | 9 | 2 | 4 | 20,100 |
| Greene | 2 | 2 | 38 | 17.9 | 11 | 0 | 2 | 11,200 |
| Hale | 5 | 2 | 39 | 12.8 | 25 | 4 | 3 | 15,600 |
| Lamar | 2 | 2 | 43 | 11.4 | 34 | 2 | 1 | 17,500 |
| Pickens | 2 | 2 | 44 | 9.1 | 41 | 2 | 2 | 22,000 |
| Tuscaloosa | 38 | 30 | 5 | 20.4 | 7 | 44 | 33 | 146,900 |
| TOTAL | 51 | 44 | 6 | 17.6 | 1 | 55 | 47 | 250,200 |
| **PHA III** | | | | | | | | |
| Blount | 5 | 4 | 32 | 9.7 | 39 | 1 | 3 | 41,100 |
| Chilton | 0 | 1 | 64 | 3.0 | 64 | 0 | 0 | 33,400 |
| Jefferson | 105 | 120 | 1 | 17.4 | 14 | 58 | 78 | 690,600 |
| St. Clair | 3 | 2 | 50 | 4.2 | 60 | 4 | 2 | 47,500 |
| Shelby | 7 | 6 | 25 | 7.8 | 47 | 5 | 4 | 77,100 |
| Walker | 10 | 1 | 66 | 1.3 | 66 | 5 | 3 | 75,100 |
| TOTAL | 130 | 134 | 1 | 13.9 | 5 | 73 | 90 | 964,700 |
| **PHA IV** | | | | | | | | |
| Calhoun | 17 | 16 | 8 | 12.6 | 27 | 20 | 12 | 126,900 |
| Chambers | 2 | 2 | 48 | 5.0 | 56 | 2 | 2 | 40,300 |
| Cherokee | 4 | 3 | 35 | 14.8 | 19 | 3 | 1 | 20,300 |
| Clay | 0 | 1 | 55 | 7.0 | 50 | 0 | 0 | 14,200 |
| Cleburne | 0 | 1 | 53 | 7.5 | 48 | 0 | 1 | 13,300 |
| Coosa | 0 | 1 | 52 | 8.5 | 42 | 0 | 0 | 11,700 |
| DeKalb | 3 | 6 | 24 | 10.1 | 37 | 2 | 5 | 59,500 |
| Etowah | 25 | 28 | 6 | 26.1 | 4 | 13 | 21 | 107,100 |
| Randolph | 1 | 3 | 36 | 14.4 | 21 | 1 | 2 | 20,900 |
| Talladega | 8 | 9 | 12 | 11.5 | 33 | 9 | 8 | 78,000 |
| Tallapoosa | 3 | 5 | 28 | 12.3 | 28 | 4 | 6 | 40,500 |
| TOTAL | 63 | 75 | 5 | 14.1 | 4 | 54 | 58 | 532,700 |

# TABLE 9-6 (continued)
# ALABAMA TB CONTROL
# 1983 and 1984

| | New TB Cases Reported | | County Rank in No. Cases Reported | New TB Case Rate per 100,000 Pop. | | Total TB Cases in File as of December 31 | | Population |
|---|---|---|---|---|---|---|---|---|
| | 1983 | 1984 | 1984 | Rate | Rank | 1983 | 1984 | July 1984 |
| **PHA V** | | | | | | | | |
| Autauga | 1 | 2 | 46 | 5.6 | 54 | 1 | 4 | 35,700 |
| Barbour | 0 | 1 | 61 | 3.9 | 62 | 2 | 1 | 25,700 |
| Bullock | 0 | 1 | 51 | 9.9 | 38 | 0 | 0 | 10,100 |
| Butler | 3 | 1 | 58 | 4.7 | 58 | 3 | 4 | 21,500 |
| Coffee | 2 | 2 | 49 | 4.9 | 57 | 1 | 2 | 40,700 |
| Covington | 4 | 2 | 47 | 5.2 | 55 | 4 | 2 | 38,100 |
| Crenshaw | 0 | 0 | 67 | 0.0 | 67 | 0 | 0 | 14,600 |
| Dale | 0 | 1 | 65 | 1.9 | 65 | 6 | 0 | 51,400 |
| Elmore | 6 | 7 | 21 | 14.6 | 20 | 4 | 4 | 47,900 |
| Geneva | 0 | 2 | 45 | 7.9 | 45 | 0 | 1 | 25,400 |
| Henry | 0 | 1 | 57 | 6.2 | 52 | 2 | 1 | 16,200 |
| Houston | 6 | 7 | 23 | 8.2 | 44 | 9 | 7 | 85,400 |
| Lee | 11 | 7 | 22 | 8.4 | 43 | 11 | 8 | 83,300 |
| Lowndes | 0 | 1 | 54 | 7.4 | 49 | 0 | 1 | 13,500 |
| Macon | 4 | 8 | 14 | 29.2 | 3 | 7 | 6 | 27,400 |
| Montgomery | 28 | 32 | 4 | 15.1 | 18 | 29 | 31 | 212,400 |
| Pike | 2 | 1 | 63 | 3.4 | 63 | 1 | 1 | 29,700 |
| Russell | 3 | 8 | 17 | 16.5 | 16 | 3 | 5 | 48,400 |
| TOTAL | 70 | 84 | 4 | 10.2 | 6 | 83 | 78 | 827,400 |
| **PHA VI** | | | | | | | | |
| Baldwin | 7 | 9 | 13 | 10.2 | 36 | 4 | 4 | 88,000 |
| Choctaw | 1 | 2 | 41 | 11.8 | 31 | 1 | 1 | 17,000 |
| Clarke | 4 | 4 | 30 | 14.2 | 22 | 5 | 1 | 28,200 |
| Conecuh | 2 | 1 | 56 | 6.2 | 51 | 1 | 0 | 16,200 |
| Dallas | 11 | 21 | 7 | 38.8 | 1 | 13 | 18 | 54,100 |
| Escambia | 5 | 8 | 15 | 20.0 | 8 | 12 | 8 | 40,100 |
| Marengo | 2 | 2 | 62 | 7.8 | 46 | 5 | 2 | 25,700 |
| Mobile | 48 | 52 | 2 | 13.5 | 24 | 65 | 26 | 385,200 |
| Monroe | 4 | 1 | 59 | 4.2 | 59 | 3 | 1 | 23,600 |
| Perry | 3 | 5 | 27 | 33.8 | 2 | 5 | 4 | 14,800 |
| Sumter | 3 | 3 | 34 | 17.5 | 12 | 0 | 4 | 17,100 |
| Washington | 1 | 2 | 42 | 11.6 | 32 | 1 | 1 | 17,300 |
| Wilcox | 1 | 3 | 33 | 21.1 | 6 | 0 | 2 | 14,200 |
| TOTAL | 92 | 113 | 3 | 15.2 | 2 | 115 | 72 | 741,500 |
| STATE | 523 | 565 | | 13.7 | | 472 | 431 | 4,132,400 |

## TABLE 9-7
## PULMONARY & EXTRAPULMONARY CASES
## 1965-1984

| Year | Pulmonary Cases | Extrapulmonary Cases | Total TB Cases Reported |
|---|---|---|---|
| 1965 | 1,374 | 43 | 1,417 |
| 1966 | 1,162 | 52 | 1,214 |
| 1967 | 1,322 | 57 | 1,379 |
| 1968 | 1,281 | 57 | 1,338 |
| 1969 | 1,129 | 74 | 1,203 |
| 1970 | 1,111 | 55 | 1,166 |
| 1971 | 909 | 76 | 985 |
| 1972 | 859 | 59 | 918 |
| 1973 | 735 | 55 | 790 |
| 1974 | 721 | 64 | 785 |
| 1975 | 719 | 61 | 780 |
| 1976 | 760 | 64 | 824 |
| 1977 | 634 | 70 | 704 |
| 1978 | 601 | 71 | 672 |
| 1979 | 580 | 64 | 644 |
| 1980 | 599 | 64 | 663 |
| 1981 | 589 | 51 | 640 |
| 1982 | 556 | 75 | 631 |
| 1983 | 461 | 62 | 523 |
| 1984 | 507 | 58 | 565 |
| TOTAL | 16,609 | 1,232 | 17,841 |

The Tuberculosis Program continues to stress that low priority be placed on the examination of persons for tuberculosis in connection with job requirements. Most of the county health departments have discontinued these activities as they have proven to be unproductive in finding or preventing cases. Other than contacts, the only persons required by law to be screened for tuberculosis are school employees. School employees are recommended for examination for tuberculosis when they are initially employed only. No subsequent periodic examinations are recommended for this group.

Major program emphasis was placed on prevention as a total of 3,962 contacts and other high risk persons were placed on INH preventive therapy, bringing the total to 135,305 started on the program since 1965. Only 465 or 3 percent (3 per 1,000) of these approximately 135,000 individuals were later reported with tuberculous disease. Of these 465 individuals who were recommended for preventive therapy and later developed disease, program records indicate that 72 percent were issued and took less than six months of preventive medication. The preventive therapy program continues to be most cost effective in preventing new tuberculosis cases.

The Tuberculosis Control Division continued contracts with eight general hospitals for the care of inpatients during 1984. The contract hospitals recorded 197 admissions, 196 discharges, and a total of 2,735 patient days during the fiscal year. The average hospital patient stay was 14 days. The average contract hospital cost was approximately $411.83 per patient day. The state tuberculosis budget cost was $176.64 per day with third party insurance paying the difference. The average cost per patient hospitalized in 1984 was $5,746.72, and the average state TB budget cost was $2,464.90.

In addition, the contract was renegotiated with Correctional Medical Systems, Inc. for recalcitrant patients to be hospitalized at Kilby Hospital and the Tutwiler Infirmary. The contract provides for one bed as needed for male patients at Kilby Correctional Facility and one bed at Julia Tutwiler Facility for females. The recalcitrant patient court order program is only utilized for the extremely difficult, nonmotivated, and noncomplying tuberculosis patient. These beds are used as a last resort effort when all public health measures have been exhausted to get the infectious patient to take his medication. In these few instances, the court must determine that the patient has infectious tuberculosis, and the patient must also be declared a public health hazard to his family and community. Patients are kept for a minimum of six weeks, and failure to report to the county health department clinic as recommended after discharge may result in the patient being rehospitalized at the correctional facility. The contract serves primarily as a deterrent as only three patients were admitted under the program in 1984. The three patients had a cumulative total of 200 days with an average stay of 66.7 days. Table 9-8, Table 9-9 and Table 9-10 give information about contract hospitals.

Organizational and operational procedures for the State TB Medical Advisory Council were implemented during 1984. These procedures, which were approved by the State Committee of Public Health, included a detailed plan for the annual evaluation of all TB Advisory Council members and fee-for-service tuberculosis clinicians.

## TABLE 9-8
## CONTRACT HOSPITAL INFORMATION
## JANUARY 1984-DECEMBER 1984

| Hospital | Admissions | Discharges | Patient Days | Average Pt. Stay |
|---|---|---|---|---|
| BMC-Montclair Birmingham | 57 | 55 | 894 | 16.3 days |
| Baptist Memorial Gadsden | 11 | 11 | 124 | 11.3 days |
| The Children's Birmingham | 4 | 4 | 40 | 10.0 days |
| Druid City Tuscaloosa | 40 | 40 | 440 | 11.0 days |
| Eliza Coffee Mem. Florence | 8 | 8 | 97 | 12.1 days |
| Huntsville Hospital Huntsville | 30 | 34 | 577 | 17.0 days |
| St. Margaret's Montgomery | 12 | 12 | 148 | 12.3 days |
| Univ. of So. Ala. Medical Center Mobile | 34 | 34 | 335 | 9.9 days |
| TOTAL | 196 | 198 | 2,655 | 13.4 days |
| Board of Corrections | 3 | 3 | 200 | 66.7 days |

The Tuberculosis Division and the State TB Laboratory continue to participate in a drug resistance study with the Centers for Disease Control. Results of the study, which began in 1976, indicate that Alabama continues to have one of the lowest drug resistance rates in the nation.

Jefferson and Mobile county health departments continue to participate in a Short-Course TB Therapy Study with CDC. The study, which began in 1982, is designed to evaluate the effectiveness of a six-month regimen compared to a nine-month regimen of INH and Rifampin for the treatment of tuberculosis. The six-month regimen includes INH, Pyrazinamide and Rifampin for two months followed by INH and Rifampin for the remaining four months. Thus far, results of the study indicate that the six-month drug program compares favorably with the nine-month drug regimen. Birmingham and Mobile are among 22 areas participating in this high priority research project.

The Tuberculosis Program field personnel, including full-time nurses and representatives, continued to assist the county health departments with priority tuberculosis control activities. They also worked with private physicians, hospitals, nursing homes and other agencies in connection with TB prevention and treatment programs. In addition to epidemiological duties, they provided services to the patients attending clinics and for outreach activities. In excess of 37,852 field visits were made in connection with priority services to patients, contacts and suspects in addition to screening activities. In addition, these employees were involved in 34 in-service programs.

During 1984 the X-ray technicians held 897 regular and outpatient clinics at the county health departments, nursing homes and other clinic sites. During these clinics, 9,479 chest X-ray examinations were performed. The technicians are responsible for maintaining all X-ray film files and performing minor repairs on all X-ray machines, sputum induction machines, Ped-O-Jet skin testing guns and other related equipment on a statewide basis. They also performed epidemiological activities as required.

Graph 9-8 compares Alabama's TB case rates since 1967 with the nation's, while Table 9-11 gives information about TB cases since 1960.

Graph 9-9 displays the total population and persons infected by tubercle bacilli by age group. Graph 9-10 shows tuberculin positive reactor rates.

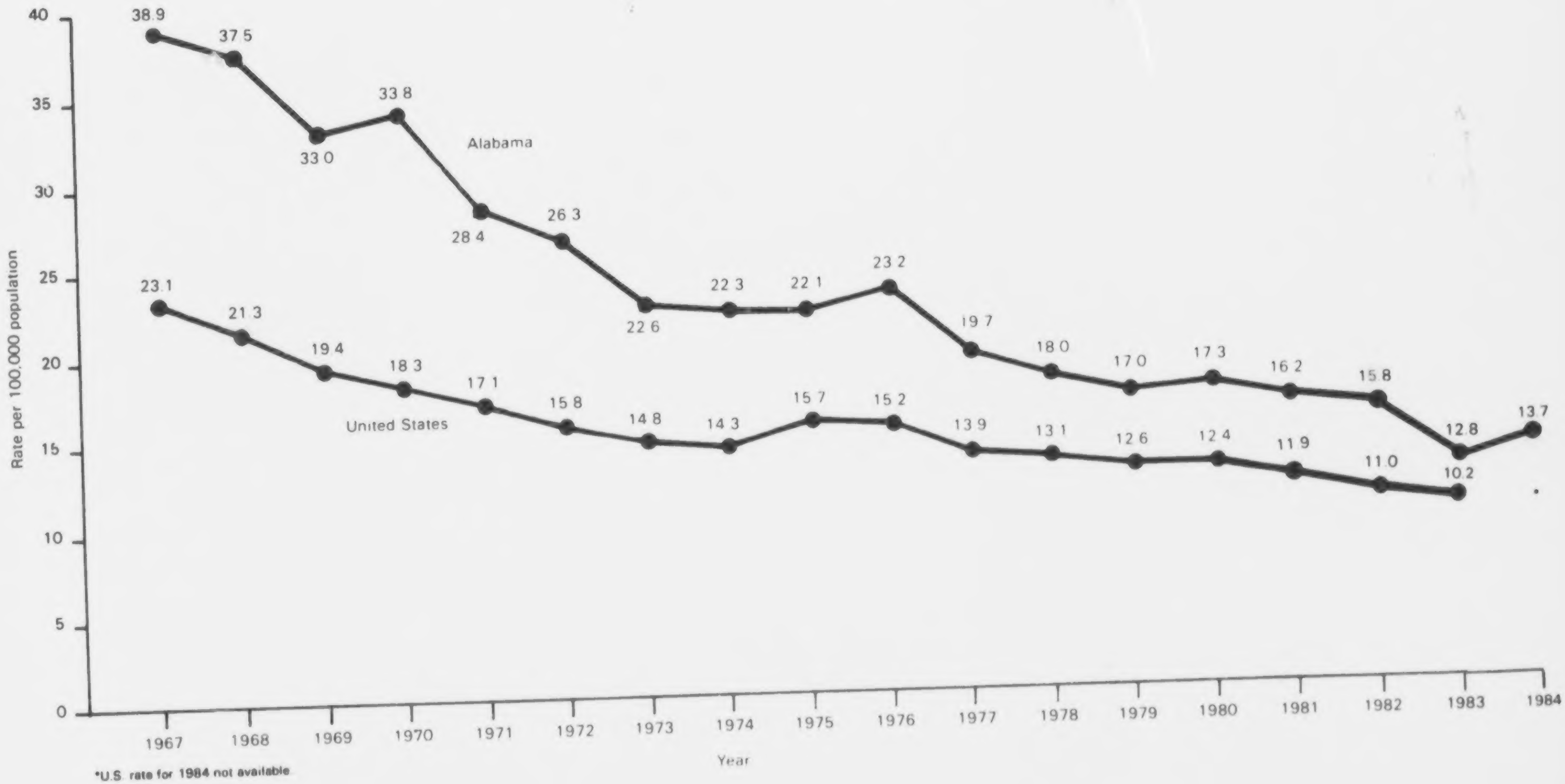
## TABLE 9-9
## CONTRACT HOSPITAL INFORMATION
## OCTOBER 1, 1983-MARCH 31, 1984

| Contract Hospital | Current Bed Allocation at $30 Per Day | Admissions | Discharges | Total Pat. Days | Average Patient Stay | Average Per Diem Cost | Total Hosp. Cost | Average Hosp. Cost Per Pat. Treated |
|---|---|---|---|---|---|---|---|---|
| BMC-Montclair Birmingham | 10 | 16 | 15 | 327 | 21.8 | $395.70 | $129,394.38 | $8,626.29 |
| Baptist Memorial Gadsden | 8 | 7 | 6 | 100 | 16.7 | 433.06 | $43,306.08 | $7,217.68 |
| The Children's Birmingham | 1 | 3 | 3 | 38 | 12.7 | 665.43 | 25,286.30 | 8,428.77 |
| Druid City Tuscaloosa | 9 | 19 | 17 | 220 | 12.9 | 392.83 | 86,422.30 | 5,083.66 |
| Eliza Coffee Mem. Hosp. Florence | 2 | 6 | 6 | 55 | 9.2 | 257.39 | 14,156.43 | 2,359.41 |
| Huntsville Hospital Huntsville | 2 | 18 | 18 | 431 | 23.9 | 366.33 | 157,886.76 | 8,771.49 |
| St. Margaret's Hosp. Montgomery | 4 | 5 | 6 | 85 | 14.2 | 289.96 | 24,646.28 | 4,107.71 |
| University of South Ala. Medical Center Mobile | 8 | 19 | 20 | 137 | 6.9 | 564.96 | 77,399.84 | 3,869.99 |
| TOTALS | 44 | 93 | 91 | 1,393 | 15.3 | $400.93 | $558,498.37 | $6,137.34 |
| State Board of Corrections | 1 | 0 | 0 | 0 | — | — | — | — |

## TABLE 9-10
## HOSPITAL PATIENT ADMISSIONS AND DISCHARGES
## 1974-1984

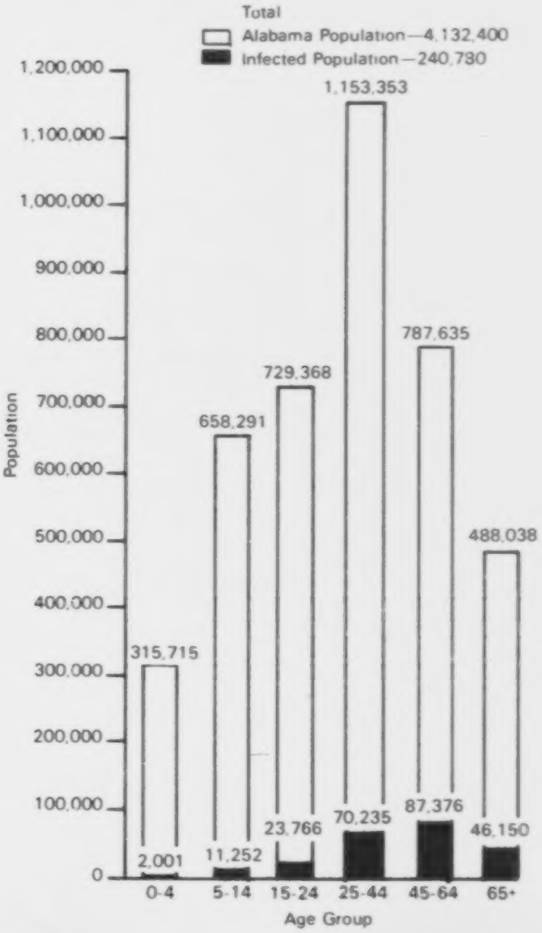
| Year | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Admissions | 668 | 557 | 459 | 473 | 470 | 358 | 364 | 321 | 251 | 199 | 196 |
| Total Discharges | 738 | 547 | 512 | 465 | 482 | 357 | 364 | 331 | 258 | 200 | 198 |

## GRAPH 9-8
## ALABAMA AND UNITED STATES
## TB CASE RATES
## 1967-1984

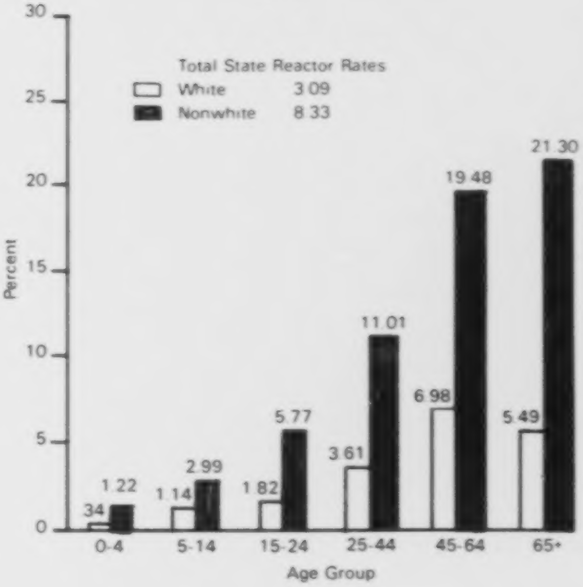


*U.S. rate for 1984 not available

### GRAPH 9-9
### TOTAL POPULATION AND PERSONS INFECTED WITH TUBERCLE BACILLI BY AGE GROUP
### 1984



### GRAPH 9-10
### TUBERCULIN POSITIVE REACTOR RATE BY AGE GROUP AND RACE
### 1984



### TABLE 9-11
### ALABAMA TUBERCULOSIS CASES, CASE RATES AND RANK IN THE U.S.
### 1960-1984

| Year | Cases | Rate | Rank |
|---|---|---|---|
| 1960 | 1,302 | 39.8 | 11 |
| 1961 | 1,313 | 39.5 | 10 |
| 1962 | 1,164 | 35.1 | 12 |
| 1963 | 1,326 | 39.3 | 7 |
| 1964 | 1,259 | 36.7 | 8 |
| 1965 | 1,417 | 40.6 | 3 |
| 1966 | 1,214 | 34.6 | 7 |
| 1967 | 1,379 | 38.9 | 3 |
| 1968 | 1,338 | 37.5 | 3 |
| 1969 | 1,203 | 33.0 | 3 |
| 1970 | 1,166 | 33.8 | 3 |
| 1971 | 985 | 28.4 | 3 |
| 1972 | 918 | 26.3 | 3 |
| 1973 | 790 | 22.6 | 5 |
| 1974 | 785 | 22.3 | 4 |
| 1975 | 780 | 22.1 | 7 |
| 1976 | 824 | 23.2 | 3 |
| 1977 | 704 | 19.7 | 9 |
| 1978 | 672 | 18.0 | 10 |
| 1979 | 644 | 17.0 | 9 |
| 1980 | 663 | 17.3 | 6 |
| 1981 | 640 | 16.2 | 9 |
| 1982 | 631 | 15.8 | 7 |
| 1983 | 523 | 12.8 | 11 |
| 1984 | 565 | 13.7 | * |

*U.S. Rank in 1984 not available

## Division of Venereal Disease Control

Through extensive case-finding and case-prevention activities, a significant decrease in reported early syphilis morbidity was achieved in calendar year 1984. This trend represented the second consecutive year of decreasing early syphilis morbidity, and it was the largest morbidity decrease in 10 years.

Two major population centers in Alabama contributed to the decrease of early syphilis. For the first time in eight years, reported primary and secondary syphilis decreased in both Jefferson and Mobile counties. Graph 9-11 demonstrates this trend.

Reported gonorrhea morbidity increased during 1984 as compared to 1983. The increase, however, was small. Penicillinase producing *Neisseria gonorrhoeae* (PPNG) and gonococcal pelvic inflammatory disease (GPID) reported morbidity decreased in 1984 as compared to 1983.

The Alabama Division of Venereal Disease Control participated in an interstate/international network for the exchange of venereal disease epidemiologic information. During 1984, 471 epidemiologic investigation forms were sent from Alabama to other states and countries and 297 forms were received by Alabama from sources outside the state.

Complete morbidity data for all reported venereal diseases by counties within each public health area are presented in Table 9-12. Table 9-13 presents data for calendar year 1984 by source of report and sex of patients.

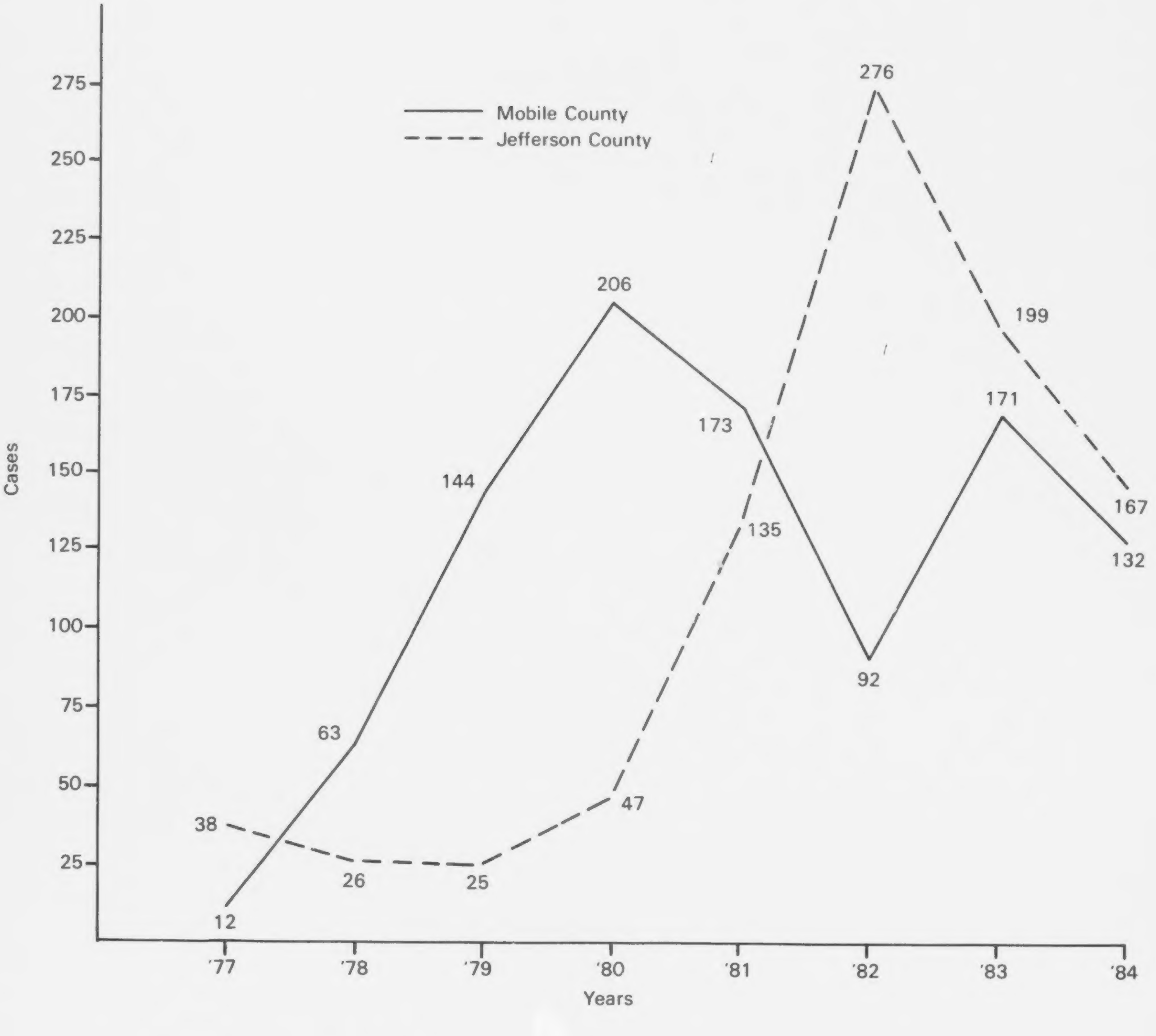
In calendar year 1984, the Venereal Disease Control Division began conducting in-depth VD program reviews at the local health department level. The review process consisted of a review team evaluating the following aspects of venereal disease control services at the local level: 1. Medical/Clinical, 2. Clinic Structure and Patient Flow, 3. Epidemiologic Activity, 4. Records Management, 5. Administrative Activities, and 6. Hospital Emergency Room Coordination (for GPID when applicable).

**Syphilis**—During 1984, 672 cases of primary and secondary syphilis were reported, representing a decrease of 17.5 percent from the 815 cases reported in 1983. Morbidity by age group is illustrated in Graph 9-12 for the years 1983-1984. Graph 9-13 demonstrated the number of primary and secondary syphilis cases reported from 1974 through 1984, while Graph 9-14 reflects total reported syphilis—all stages—for the same period of time.

Reported early latent syphilis also declined in calendar year 1984 from 528 reported cases in 1983 to 490 cases in 1984. This represents a 7.2 percent reduction compared to only a 0.4 percent reduction in 1983 over 1982. Graph 9-15 reflects this decreasing trend.

Contrary to the decreasing trend of early syphilis, reported late and late latent syphilis has been significantly increasing since 1981. Late syphilis increased from 160 reported cases in 1983 to 203 cases in 1984, representing an increase of 26.9 percent. Graph 9-16 clearly indicates this escalating trend.

### GRAPH 9-11
### PRIMARY AND SECONDARY SYPHILIS MORBIDITY
### JEFFERSON AND MOBILE COUNTIES
### CY 1977-1984



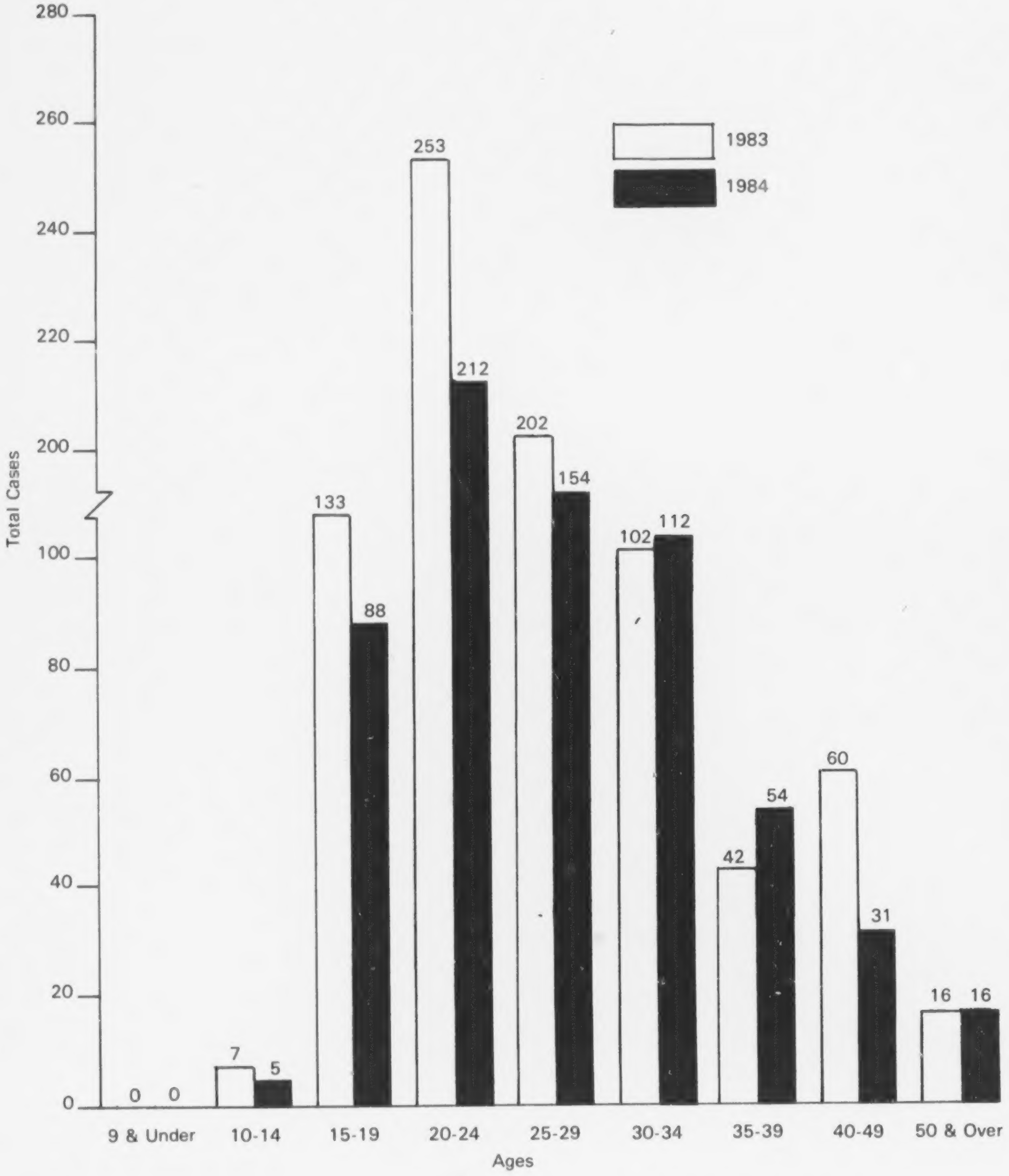
# TABLE 9-12
# VENEREAL DISEASE MORBIDITY (MILITARY EXCLUDED)
# RATE PER 100,000 POPULATION
# 1983 and 1984

| | Primary & Secondary Syphilis | | | | Total Syphilis | | Gonorrhea | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1983 | | 1984 | | 1983 | 1984 | 1983 | | 1984 | |
| Entire State | Cases | Rate | Cases | Rate | Cases | Cases | Cases | Rate | Cases | Rate |
| **PHA I** | | | | | | | | | | |
| Colbert | 5 | 8.8 | 6 | 10.6 | 7 | 13 | 198 | 349.2 | 235 | 414.5 |
| Cullman | 1 | 1.5 | 3 | 4.6 | 3 | 4 | 31 | 47.3 | 34 | 51.9 |
| Franklin | 1 | 3.3 | 2 | 6.6 | 1 | 3 | 55 | 182.7 | 34 | 113.0 |
| Jackson | | | | | 2 | | | | 6 | 10.6 |
| Lauderdale | 6 | 7.0 | 2 | 2.3 | 10 | 4 | 187 | 217.2 | 131 | 152.1 |
| Lawrence | 1 | 3.2 | 2 | 6.3 | 3 | 3 | 41 | 130.2 | 82 | 260.3 |
| Limestone | 9 | 18.7 | 9 | 18.7 | 16 | 18 | 45 | 93.6 | 67 | 139.3 |
| Madison | 24 | 11.5 | 13 | 6.2 | 39 | 26 | 1,437 | 688.9 | 1,313 | 629.4 |
| Marion | | | | | | 2 | 18 | 54.9 | 5 | 15.2 |
| Marshall | | | | | 2 | 2 | 14 | 20.0 | 16 | 22.9 |
| Morgan | 10 | 10.4 | 2 | 2.1 | 13 | 7 | 209 | 218.2 | 212 | 221.3 |
| Winston | | | | | | | 14 | 57.9 | 5 | 20.7 |
| TOTAL | 57 | 7.1 | 39 | 4.8 | 96 | 82 | 2,249 | 279.1 | 2,140 | 265.6 |
| **PHA II** | | | | | | | | | | |
| Bibb | | | | | | 1 | 18 | 108.4 | 35 | 210.8 |
| Fayette | 1 | 5.0 | | | 1 | 1 | 12 | 60.3 | 15 | 75.4 |
| Greene | 1 | 8.9 | 4 | 35.7 | 5 | 10 | 79 | 705.4 | 60 | 535.7 |
| Hale | 1 | 6.4 | | | 2 | 1 | 63 | 403.8 | 99 | 634.6 |
| Lamar | 2 | 11.6 | 3 | 17.3 | 3 | 4 | 4 | 23.1 | 16 | 92.5 |
| Pickens | 1 | 4.5 | | | 1 | 1 | 56 | 254.5 | 29 | 131.8 |
| Tuscaloosa | 22 | 15.1 | 19 | 13.1 | 51 | 31 | 1,342 | 923.6 | 1,455 | 1,001.4 |
| TOTAL | 28 | 11.3 | 26 | 10.5 | 63 | 49 | 1,574 | 634.9 | 1,709 | 689.4 |
| **PHA III** | | | | | | | | | | |
| Blount | 3 | 7.5 | 1 | 0.25 | 4 | 2 | 21 | 52.2 | 33 | 8.2 |
| Chilton | 1 | 3.0 | | | 3 | 2 | 60 | 182.9 | 63 | 19.2 |
| Jefferson | 216 | 31.3 | 167 | 24.2 | 375 | 290 | 6,576 | 518.9 | 7,066 | 1,025.4 |
| St. Clair | | | 1 | 2.2 | 3 | 6 | 41 | 88.7 | 43 | 93.1 |
| Shelby | 1 | 1.3 | 3 | 4.0 | 7 | 8 | 56 | 74.8 | 72 | 96.1 |
| Walker | 1 | 1.4 | | | 2 | 1 | 85 | 115.0 | 82 | 111.3 |
| TOTAL | 222 | 23.2 | 172 | 18.0 | 394 | 309 | 6,839 | 715.6 | 7,359 | 768.9 |
| **PHA IV** | | | | | | | | | | |
| Calhoun | 24 | 19.1 | 5 | 4.0 | 38 | 19 | 489 | 389.0 | 396 | 315.0 |
| Chambers | 6 | 14.9 | 6 | 14.9 | 8 | 8 | 94 | 233.3 | 91 | 225.8 |
| Cherokee | | | | | | | 1 | 5.0 | 5 | 25.0 |
| Clay | | | 1 | 7.1 | | 2 | 42 | 297.9 | 62 | 439.7 |
| Cleburne | 1 | 7.6 | | | 2 | | 4 | 30.3 | 12 | 90.0 |
| Coosa | | | 2 | 17.1 | | 3 | 71 | 606.8 | 54 | 461.5 |
| DeKalb | 1 | 1.7 | | | 2 | 1 | 32 | 54.8 | 59 | 101.0 |
| Etowah | 11 | 10.3 | 6 | 5.6 | 25 | 18 | 164 | 153.8 | 242 | 227.0 |
| Randolph | | | | | | | 18 | 86.1 | 13 | 62.2 |
| Talladega | 2 | 2.6 | 13 | 16.8 | 11 | 28 | 322 | 416.0 | 264 | 341.1 |
| Tallapoosa | 2 | 5.0 | 1 | 2.5 | 6 | 3 | 99 | 246.3 | 57 | 141.8 |
| TOTAL | 47 | 8.9 | 34 | 6.4 | 92 | 82 | 1,336 | 252.8 | 1,255 | 237.5 |

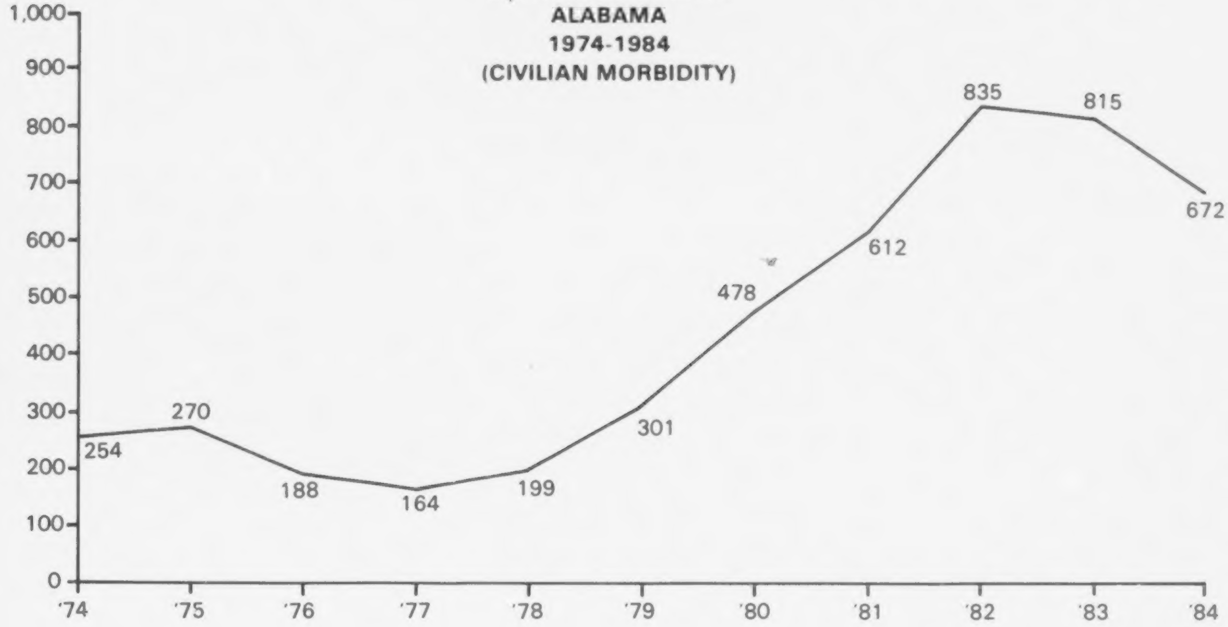
## TABLE 9-12 (continued)
## VENEREAL DISEASE MORBIDITY (MILITARY EXCLUDED)
## RATE PER 100,000 POPULATION
## 1983 and 1984

| Entire State | Primary & Secondary Syphilis | | | | Total Syphilis | | Gonorrhea | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1983 | | 1984 | | 1983 | 1984 | 1983 | | 1984 | |
| | Cases | Rate | Cases | Rate | Cases | Cases | Cases | Rate | Cases | Rate |
| **PHA V** | | | | | | | | | | |
| Autauga | 1 | 2.9 | 3 | 8.6 | 4 | 8 | 51 | 145.7 | 30 | 85.7 |
| Barbour | 9 | 35.2 | 2 | 7.8 | 12 | 6 | 82 | 320.3 | 91 | 355.5 |
| Bullock | | | 1 | 9.8 | 3 | 4 | 99 | 970.6 | 71 | 696.0 |
| Butler | 2 | 9.2 | 1 | 4.6 | 6 | 4 | 33 | 152.0 | 64 | 294.9 |
| Coffee | | | 8 | 19.8 | 1 | 14 | 43 | 106.4 | 88 | 217.8 |
| Covington | | | 2 | 5.3 | 1 | 7 | 194 | 510.5 | 147 | 386.8 |
| Crenshaw | 6 | 41.4 | | | 8 | 0 | 45 | 310.3 | 14 | 36.8 |
| Dale | 7 | 13.8 | 6 | 11.8 | 11 | 12 | 63 | 124.0 | 31 | 61.0 |
| Elmore | 5 | 10.6 | 6 | 12.8 | 8 | 11 | 86 | 183.0 | 71 | 151.1 |
| Geneva | 2 | 7.9 | 7 | 27.8 | 4 | 13 | 19 | 75.4 | 13 | 51.6 |
| Henry | 3 | 18.6 | 1 | 6.2 | 7 | 2 | 51 | 316.8 | 25 | 155.3 |
| Houston | 27 | 32.5 | 9 | 10.8 | 58 | 33 | 499 | 599.8 | 465 | 558.9 |
| Lee | 3 | 3.7 | 2 | 2.4 | 11 | 8 | 321 | 391.5 | 355 | 432.9 |
| Lowndes | 6 | 44.4 | 6 | 44.4 | 12 | 8 | 147 | 1,088.9 | 124 | 918.5 |
| Macon | 10 | 36.6 | 3 | 11.0 | 21 | 8 | 111 | 406.6 | 210 | 769.2 |
| Montgomery | 124 | 59.1 | 89 | 42.4 | 266 | 208 | 3,054 | 1,456.4 | 3,431 | ,636.1 |
| Pike | 2 | 6.8 | 3 | 10.2 | 9 | 11 | 159 | 540.8 | 223 | 758.5 |
| Russell | 8 | 16.6 | 1 | 2.1 | 15 | 13 | 179 | 370.6 | 231 | 478.3 |
| TOTAL | 215 | 26.3 | 150 | 18.3 | 457 | 370 | 5,236 | 640.2 | 5,684 | 695.0 |
| **PHA VI** | | | | | | | | | | |
| Baldwin | 12 | 13.9 | 13 | 15.1 | 18 | 22 | 125 | 145.0 | 144 | 167.1 |
| Choctaw | | | | | | 1 | 11 | 64.3 | 11 | 64.3 |
| Clarke | 1 | 3.5 | 1 | 3.5 | 1 | 2 | 52 | 184.4 | 85 | 301.4 |
| Conecuh | 1 | 6.2 | 1 | 6.2 | 1 | 2 | 69 | 425.9 | 70 | 432.1 |
| Dallas | 36 | 63.7 | 20 | 35.4 | 49 | 37 | 767 | 1,357.5 | 648 | 146.9 |
| Escambia | 8 | 20.1 | 26 | 65.2 | 16 | 59 | 89 | 223.0 | 138 | 345.9 |
| Marengo | 1 | 3.9 | 26 | 101.2 | 2 | 37 | 27 | 105.1 | 23 | 89.5 |
| Mobile | 171 | 44.7 | 132 | 34.5 | 289 | 262 | 4,050 | 1,059.7 | 3,513 | 919.2 |
| Monroe | 5 | 21.4 | 10 | 42.7 | 9 | 18 | 24 | 102.6 | 5 | 21.4 |
| Perry | 2 | 13.4 | 1 | 6.7 | 6 | 3 | 35 | 234.9 | 25 | 167.8 |
| Sumter | 5 | 29.2 | 16 | 93.6 | 12 | 26 | 25 | 146.2 | 42 | 245.6 |
| Washington | 2 | 11.6 | | | 4 | 0 | 4 | 23.3 | 16 | 93.0 |
| Wilcox | 2 | 13.9 | 5 | 34.7 | 2 | 6 | 114 | 791.7 | 135 | 937.5 |
| TOTAL | 246 | 33.3 | 251 | 34.0 | 409 | 475 | 5,392 | 729.6 | 4,855 | 660.0 |
| STATE TOTAL | 815 | 19.9 | 672 | 16.3 | 1,511 | 1,367 | 22,626 | 552.7 | 23,002 | 560.3 |

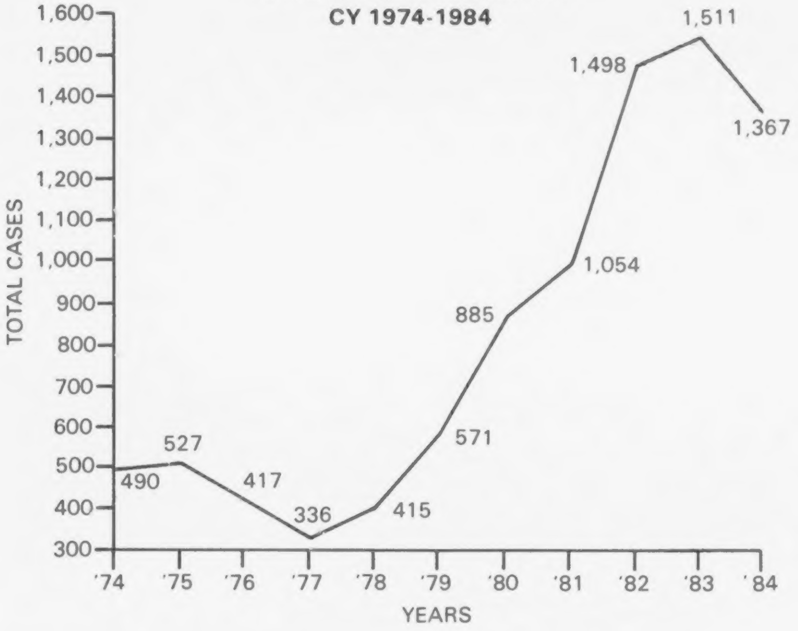
## GRAPH 9-12
## PRIMARY AND SECONDARY SYPHILIS
## TOTAL CASES BY AGE GROUPS
## 1983-1984



GRAPH 9-13
PRIMARY AND SECONDARY
SYPHILIS MORBIDITY
ALABAMA
1974-1984
(CIVILIAN MORBIDITY)



GRAPH 9-14
STATE OF ALABAMA
TOTAL SYPHILIS MORBIDITY
CY 1974-1984

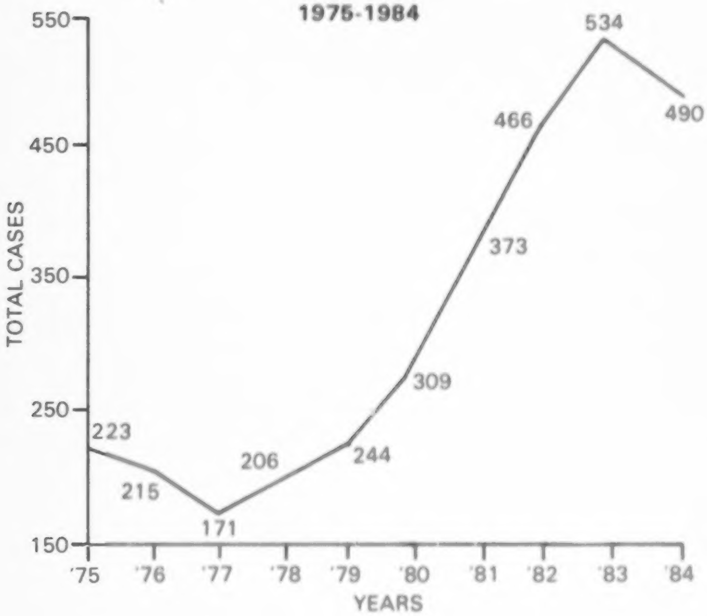


# TABLE 9-13
# VENEREAL DISEASE MORBIDITY REPORT
## SOURCE OF REPORT BY SEX
## CY 1984
## (CIVILIAN MORBIDITY ONLY)

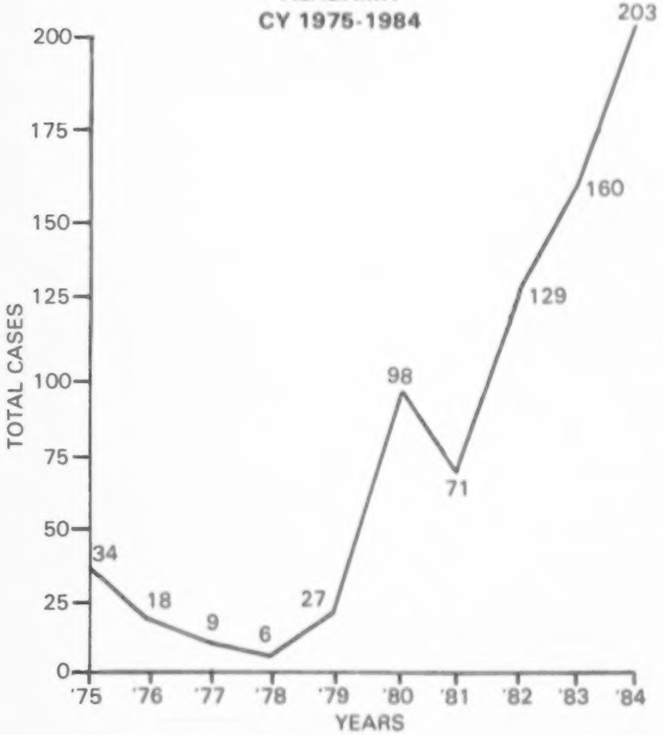
| Source of Report | Sex | Syphilis | | | | | Gonorrhea |
|---|---|---|---|---|---|---|---|
| | | Primary and Secondary | Early Latent | Late and Late Latent | Congenital* | Not Stated | |
| PRIVATE PHYSICIANS | Male | 87 | 31 | 22 | — | — | 1,226 |
| | Female | 53 | 35 | 42 | — | — | 3,178 |
| | Total | 140 | 66 | 64 | — | — | 4,404 |
| PUBLIC CLINICS | Male | 356 | 278 | 80 | | — | 9,787 |
| | Female | 176 | 146 | 59 | 2 | — | 8,811 |
| | Total | 532 | 424 | 139 | — | — | 18,598 |
| TOTAL CIVILIAN | — | 672 | 490 | 203 | 2 | | 23,002 |

*Age of Congenital Syphilis Cases: Less than 1 year (2); More than 1 year (0)

GRAPH 9-15
EARLY LATENT SYPHILIS MORBIDITY
ALABAMA
1975-1984



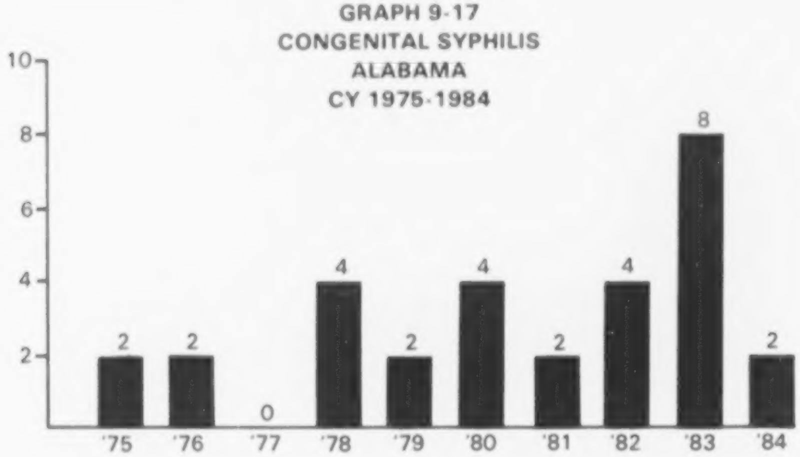
GRAPH 9-16
LATE LATENT SYPHILIS MORBIDITY
ALABAMA
CY 1975-1984

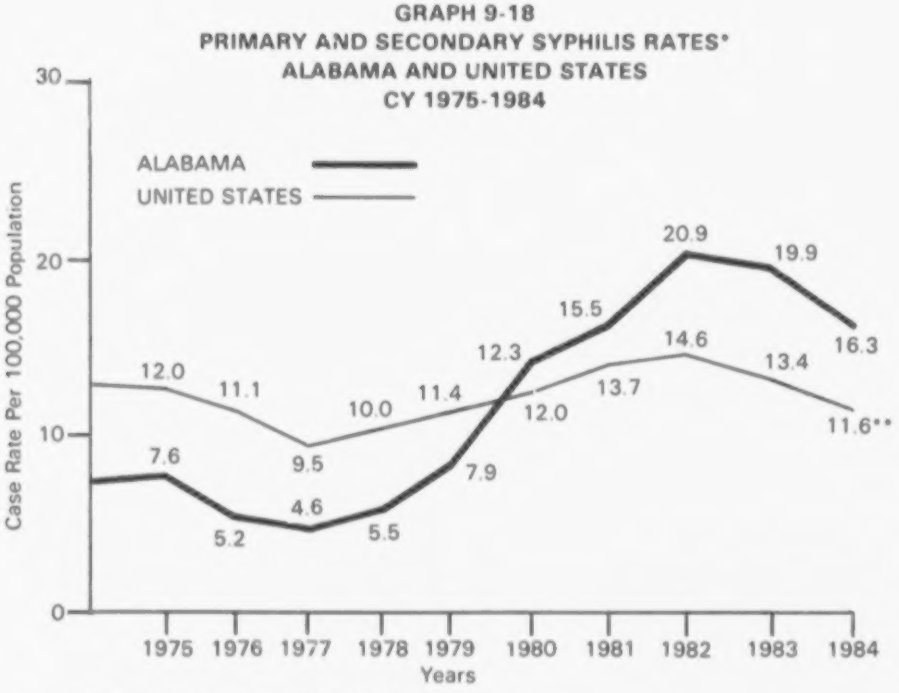


Reported congenital syphilis (under 1 year of age) continued its erratic trend in 1984. After increasing in 1983 to a 10 year high, reported congenital syphilis decreased significantly in calendar year 1984. Graph 9-17 shows the reported incidence of congenital syphilis in Alabama for the past 10 years.

Rates of incidence for primary and secondary syphilis present a different perspective. Graph 9-18 compares the rates for Alabama with those of the United States from 1975 through 1984. Table 9-14 depicts age-sex specific rates for Alabama.

Of significant interest in 1984 was the detection and control of two potentially serious early syphilis outbreaks. By mid-1984 a major epidemic of early syphilis within the Alabama prison system was avoided through extensive examination and prophylactic treatment of contacts, cluster


GRAPH 9-17
CONGENITAL SYPHILIS
ALABAMA
CY 1975-1984


GRAPH 9-18
PRIMARY AND SECONDARY SYPHILIS RATES*
ALABAMA AND UNITED STATES
CY 1975-1984

*Based on Estimated 1983 Populations.
**Provisional Data.

## TABLE 9-14
## PRIMARY AND SECONDARY SYPHILIS
## AGE/SEX CASE RATES*
## ALABAMA
## CALENDAR YEAR 1984

| Age Group | Male | | Female | | State Total | |
|---|---|---|---|---|---|---|
| | No. of Cases | Rate Per 100,000 | No. of Cases | Rate Per 100,000 | No. of Cases | Rate Per 100,000 |
| ≤9 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 10-14 | 0 | 0.0 | 5 | 3.1 | 5 | 1.5 |
| 15-19 | 40 | 21.7 | 48 | 26.7 | 88 | 24.1 |
| 20-24 | 140 | 81.5 | 72 | 40.7 | 212 | 60.8 |
| 25-29 | 116 | 71.0 | 38 | 22.5 | 154 | 46.3 |
| 30-39 | 114 | 39.0 | 52 | 17.1 | 166 | 27.9 |
| 40-49 | 23 | 10.5 | 8 | 3.3 | 31 | 6.8 |
| ≥50 | 10 | 2.2 | 6 | 1.0 | 16 | 1.5 |
| Total | 443 | 22.4 | 229 | 10.6 | 672 | 16.3 |

*Rates Per 100,000 Population Based on Estimated 1983 Population

suspects and cluster associates. Ultimately, the entire prison population at Holman and Atmore prisons was protected against acquiring this infection. Subsequently, new medical and epidemiologic procedures have been developed and implemented to protect the prison population from syphilis and gonorrhea.

The second effort to control the spread of early syphilis occurred in a rural area of the state where no public STD examination and treatment facilities were readily available. From July 16 through August 20, 1984, 26 patients in Marengo County were identified and treated for early syphilis. By augmenting the existing public health field staff in the area with three other casefinders from outside the area, this potentially threatening epidemic was aborted.

During 1984, every effort was made to locate and interview all primary, secondary and early latent syphilis patients for sexual contacts. Of the 1,175 reported civilian infections, 99.8 percent were interviewed. These interviews produced 3,718 contacts, of which 3,218 were located and examined. As a result, 372 persons were found to be infected and brought to treatment for syphilis and another 1,864 were prophylactically treated. Table 9-15 shows 1984 interviewing productivity.

A major contributing factor in the reduction and control of syphilis in Alabama has been the Reactor Surveillance Registry. The function of the registry is to quickly identify and initiate follow-up action on patients who have a reactive serological test for syphilis with no previous history of treatment for the disease. During 1984, 20,203 reactive serological tests were received by the Reactor Surveillance Unit. As a result, 2,811 were assigned for field follow-up. Of those assigned for follow-up, 641 patients were identified as untreated for their infection and subsequently brought to treatment. In 1983, 723 such patients were identified in this manner. Table 9-16 shows relevant data from the

## TABLE 9-15
## EPIDEMIOLOGIC ACTIVITY
## PRIMARY, SECONDARY, EARLY LATENT SYPHILIS
## CALENDAR YEAR 1984

| **Original Interviews** | |
|---|---|
| Number of patients interviewed | 1,173 |
| Number of contacts obtained | 2,796 |
| Contact index | 2.38 |
| Percent of patients naming no contacts | 4.6% |
| **Reinterviews** | |
| Number of Patients Reinterviewed · | 1,009 |
| Number of Contacts Obtained | 922 |
| Reinterview Contact Index | 0.91 |

## TABLE 9-16
## SYPHILIS REACTOR REGISTRY
## 1983 and 1984

| | 1983 | 1984 | Percent Change |
|---|---|---|---|
| Total Reactors Received | 27,578 | 20,203 | -26.7 |
| Total Reactors Followed by Field Staff | 3,926 | 2,811 | -28.4 |
| Total Brought to Treatment for Syphilis (All Stages) | 723 | 641 | -11.3 |

Syphilis Reactor Registry for 1983 and 1984.

Surveillance of laboratories to ensure thorough and prompt reporting of patients with a reactive serologic test for syphilis continued throughout 1984 as a major program priority. During 1984, 99.9 percent of all potential laboratories that could report actually did routinely submit reports to the Venereal Disease Control Division.

**Gonorrhea**—Reported gonorrhea morbidity in Alabama increased in calendar year 1984. During 1984, 23,002 cases were reported, representing a 1.7 percent increase from the 1983 level. Graph 9-19 demonstrates these data and trends. Case rates are presented in Graph 9-20. Cases by age groupings are shown in Graph 9-21 while case rates by age/sex are included in Table 9-17.

Private medical source reports of gonorrhea decreased in calendar year 1984; however, morbidity from public medical sources increased by 4.2 percent, or from 17,849 cases in 1983 to 18,598 cases in 1984. Private medical source reports decreased from 4,777 cases in 1983 to 4,404 cases in 1984 for a decrease of 7.8 percent.

The reported incidence of gonococcal pelvic inflammatory disease (GPID) continued to decline in calendar year 1984. In 1983, 503 such cases were reported; whereas, in 1984, 440 GPID cases were reported, representing a decrease of 12.5 percent. Graph 9-22 shows reported GPID since 1980.

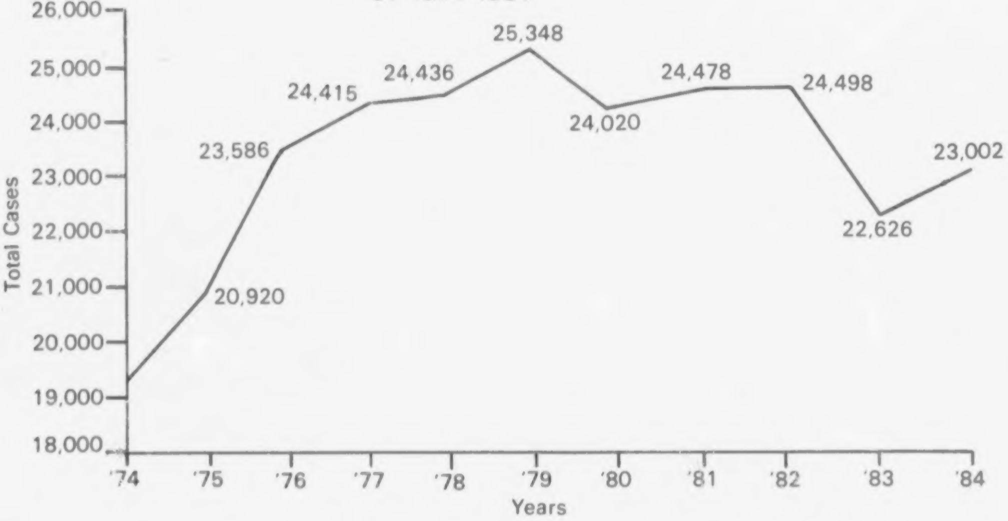
The reported number of Penicillinase Producing *Neisseria Gonorrhoeae* cases decreased again in calendar year 1984. This decline represented the second consecutive year of declining morbidity. In 1984, 75 cases were reported for a decline of 6.3 percent from the 80 cases reported in 1983. The major area reporting cases in 1984 was Jefferson County, with 32 cases. Mobile County, which had reported 57 cases in 1983, reported only 20 PPNG infections in 1984. Only two public health areas did not report any PPNG in 1984. Table 9-18 shows PPNG morbidity by public health area for calendar years 1983-1984, and Graph 9-23 indicates reported PPNG in Alabama since the beginning of surveillance efforts.

During calendar year 1984, the epidemiologic follow-up of priority gonorrhea patients continued to be an important element of the Alabama Venereal Disease Control Program. Table 9-19 summarizes epidemiological efforts. Foremost in importance was PPNG epidemiology. GPID, male and female infections (patients reinfected within six months) followed next.

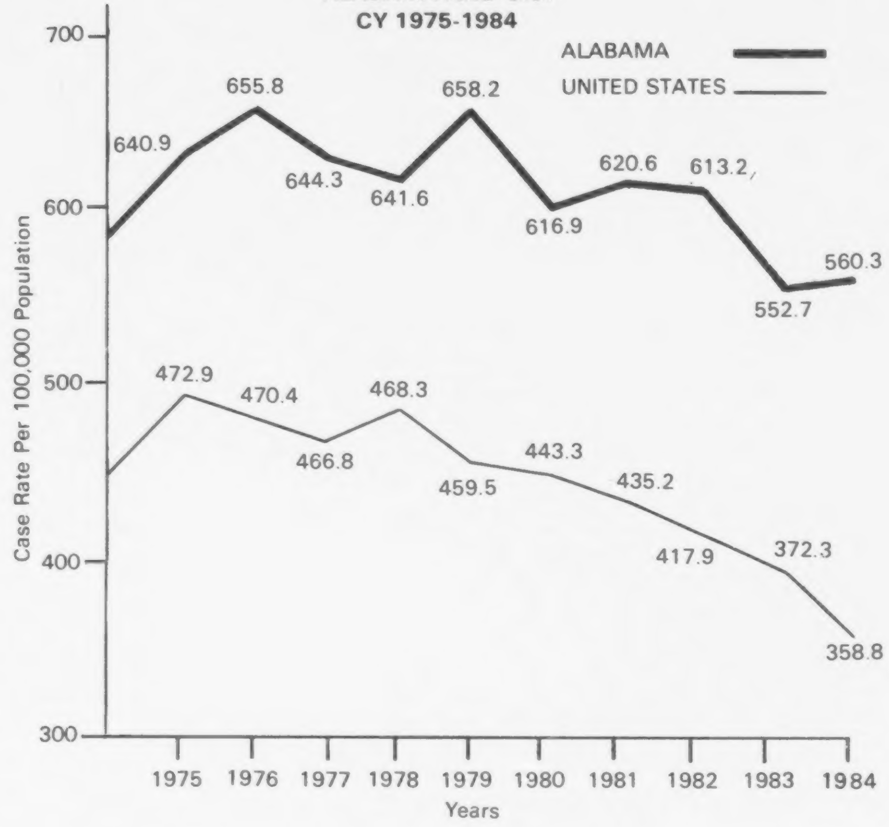
Contact interviews of 75 PPNG infections yielded 158 sexual contacts. Twenty-five of these contacts were found to be infected and were brought to treatment for gonococcal infections. Of the 75 reported cases, 18 (24.0 percent) were brought to morbidity as contacts to gonorrhea; seven (9.3 percent) were identified through the cluster process; and six (8.0 percent) were found through test-of-cure and rescreen follow-up. The total identified through some type of epidemiologic follow-up was 41.3 percent.

The 412 GPID patients interviewed for sex partners during 1984 yielded a total of 503 sexual contacts. Of these, 394, or 78.3 percent, were examined. From the examined contacts, 128 were brought to treatment for a gonococcal infection. Interestingly, approximately 36.8 percent were asymptomatic.

GRAPH 9-19
GONORRHEA MORBIDITY
ALABAMA
CY 1974-1984



## GRAPH 9-20
## GONORRHEA CASE RATES*
## ALABAMA AND U.S.
## CY 1975-1984



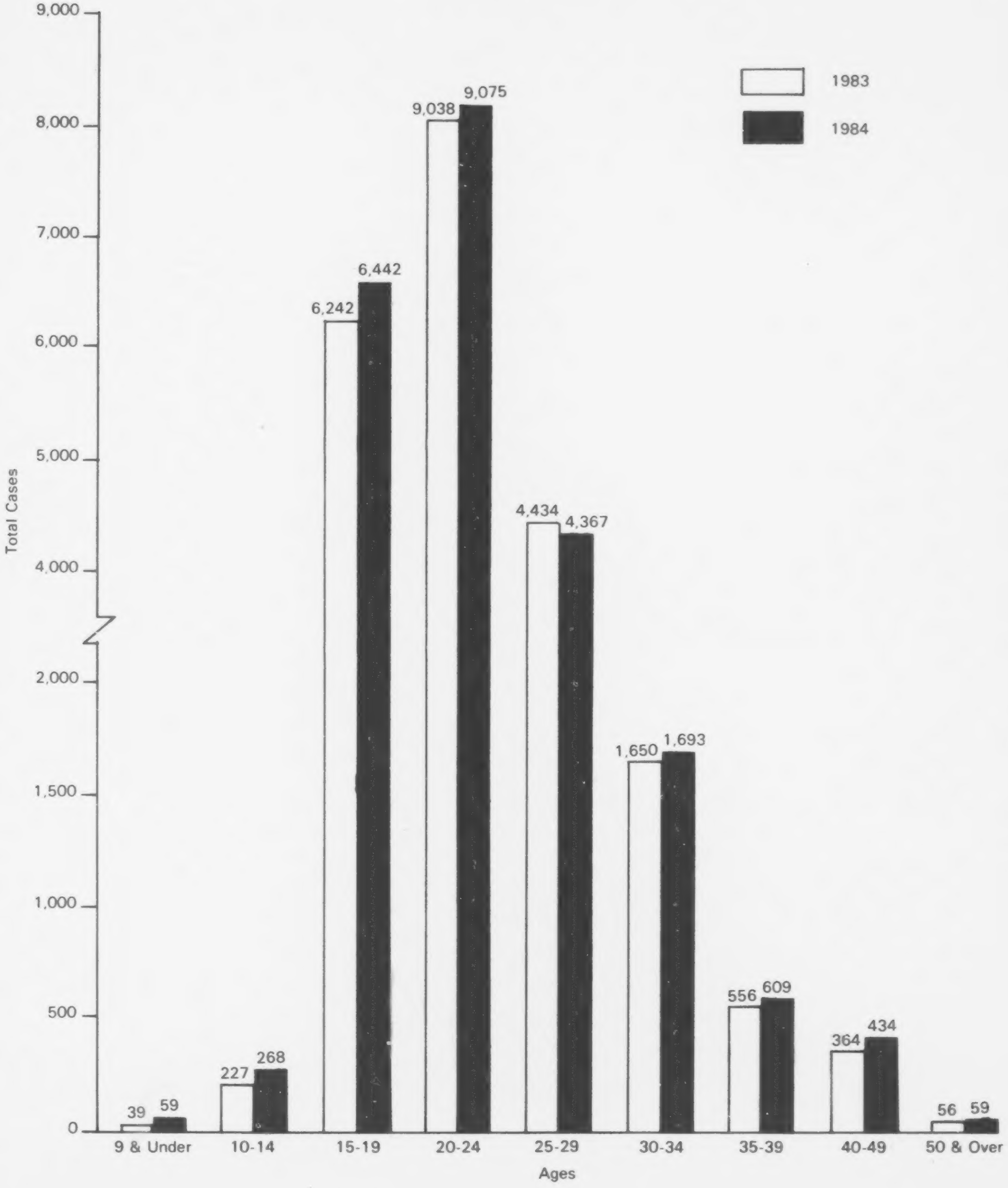
## TABLE 9-17
## GONORRHEA AGE/SEX CASE RATES*
## ALABAMA
## CY 1984

| Age Group | Male | | Female | | State Total | |
|---|---|---|---|---|---|---|
| | No. of Cases | Rate Per 100,000 | No. of Cases | Rate Per 100,000 | No. of Cases | Rate Per 100,000 |
| ≤9 | 13 | 3.9 | 27 | 8.7 | 40 | 6.2 |
| 10-14 | .46 | 27.7 | 222 | 139.3 | 268 | 82.4 |
| 15-19 | 2,329 | 1,262.8 | 4,113 | 2,283.9 | 6,442 | 1,767.3 |
| 20-24 | 4,365 | 2,542.5 | 4,710 | 2,660.8 | 9,075 | 2,602.5 |
| 25-29 | 2,430 | 1,488.3 | 1,937 | 1,145.7 | 4,367 | 1,314.0 |
| 30-39 | 1,441 | 493.4 | 861 | 283.9 | 2,302 | 386.7 |
| 40-49 | 250 | 114.1 | 137 | 57.3 | 387 | 84.5 |
| ≤50 | 84 | 18.8 | 22 | 3.5 | 106 | 9.9 |
| Total | 10,958 | 554.6 | 12,029 | 557.8 | 22,987** | 556.3 |

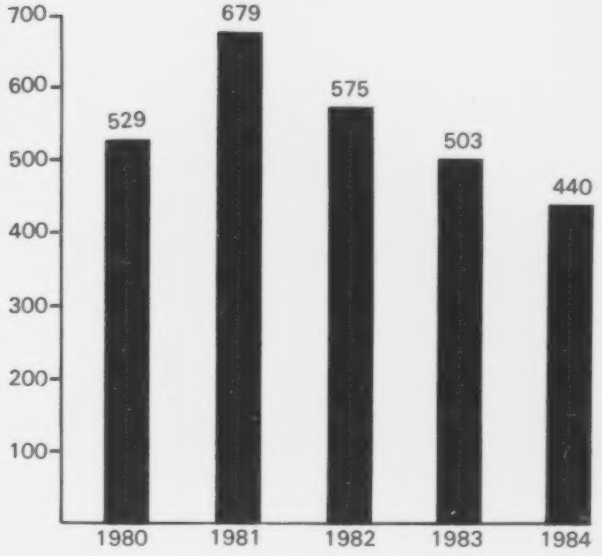
*Rates Per 100,000 Population Based on Estimated 1983 Population

**Fifteen additional patients were reported, but age was not specified

## GRAPH 9-21
## GONORRHEA CASES BY AGE GROUPS
## ALABAMA
## 1983-1984



### GRAPH 9-22
### REPORTED GPID
### ALABAMA
### CY 1980-1984



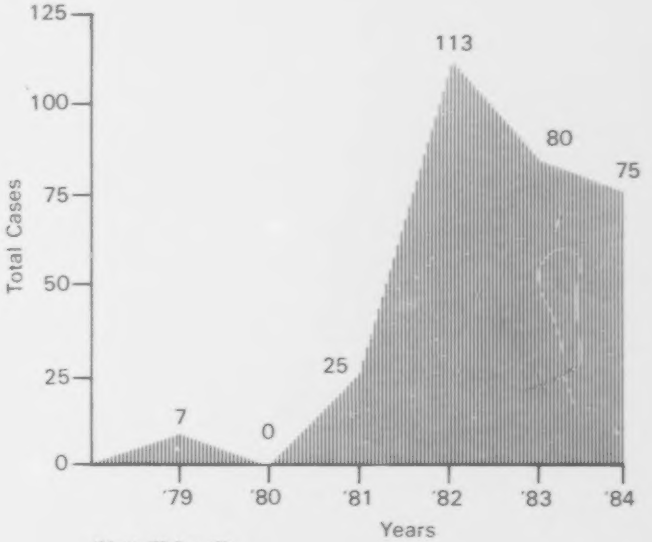
### TABLE 9-18
### REPORTED PPNG
### BY PHA
### 1983 and 1983

| | 1983 | 1984 | Percent Change |
|---|---|---|---|
| PHA I | 2 | 2 | — |
| PHA II | 0 | 0 | — |
| PHA III | 9 | 35 | +288.9 |
| PHA IV | 1 | 0 | -100.0 |
| PHA V | 10 | 16 | +60.0 |
| PHA VI | 58 | 22 | -62.1 |
| Total | 80 | 75 | -6.3 |

Epidemiology applied to male and female repeat infections yielded similar results. During 1984, 976 repeat male and 370 repeat female infected patients were interviewed for sex contacts. Male repeater interviews yielded 1,005 sexual contacts, with 420 of these contacts brought to treatment for disease. Female repeater interviews yielded 440 contacts with 152 of these contacts treated for gonococcal infection. The percent of contacts examined was 76.1 percent for male repeater interviews and 79.7 percent for female repeater interviews.

Routine screening of females for gonorrhea infection continued to be a mainstay of the gonorrhea control effort in calendar year 1984. For the first time in four years, the reported volume of diagnostic screening tests increased. In

### GRAPH 9-23
### PENICILLINASE PRODUCING NEISSERIA GONORRHOEAE (PPNG) MORBIDITY
### ALABAMA 1976-1984



*March '76-Dec. '79
*Beginning of Surveillance Program

## TABLE 9-19
## GONORRHEA
## EPIDEMIOLOGIC RESULTS
## ALABAMA, 1984

| Interviewing Results | First-Time Infections | | Repeat Infections | | GPID | PPNG |
|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | | |
| 1. Number of Patients Interviewed | 433 | 522 | 976 | 370 | 412 | 75 |
| 2. Total Contacts Obtained | 606 | 611 | 1,005 | 440 | 503 | 158 |
| 3. Contact Index | 1.40 | 1.17 | 1.02 | 1.18 | 1.22 | 2.10 |
| 4. Percent of New In-state Contacts Examined | 83.2 | 86.8 | 76.1 | 79.7 | 78.3 | 83.3 |
| 5. Number of Contacts Treated for Gonorrhea | 186 | 104 | 420 | 152 | 128 | 25 |

calendar year 1983, 242,679 tests were performed; whereas in 1984 260,457 similar tests were processed for an increase of 7.3 percent. Table 9-20 gives a complete screening report.

A Patient Education Protocol (PEP) was developed in calendar year 1984 designed to maximize the effect of providing educational information to the patient. Built into the protocol was a system of quality assurances to measure patient responses to treatment, test-of-cure, self-referral of contacts, and other patient requirements.

During 1984, all public clinic patients continued to receive VD education through educational counseling or conditional contract interviews. Further efforts were made to promote VD education through the distribution of pamphlets and posters throughout the county health departments.

## TABLE 9-20
## GONORRHEA CULTURE TEST RESULTS OF FEMALES
## NUMBER TESTED AND NUMBER POSITIVE BY SOURCE OF TEST
## (TYPE OF FACILITY/HEALTH PROVIDER)
## (EXCLUDE TESTS OF CURE)

**PROJECT AREA**

**PERIOD COVERED:** From January 1984 To December 1984

| **SOURCE OF TEST (TYPE FACILITY)** | Number Tested | Number Negative | Number Positive |
|---|---|---|---|
| 1. Health Dept. Non VD Clinics | ( 96,709 ) | ( 92,813 ) | ( 3,896 ) |
| (a) Family Planning | 76,013 | 72,801 | 3,212 |
| (b) Prenatal, OB-GYN | 19,634 | 18,987 | 647 |
| (c) Cancer Detection | 4 | 3 | 1 |
| (d) Combinations or Other | 1,058 | 1,022 | 36 |
| 2. Public/Private Hospital-Outpatient | ( 14,112 ) | ( 13,101 ) | ( 1,011 ) |
| (a) Family Planning | | | |
| (b) Prenatal, OB-GYN | 2,654 | 2,535 | 119 |
| (c) Cancer Detection | | | |
| (d) Combinations or Other | 11,458 | 10,566 | 892 |
| 3. Public/Private Hospital-Inpatient | ( ) | ( ) | ( ) |
| (a) Obstetric | | | |
| (b) Gynecologic | | | |
| (c) Combinations or Other | | | |
| 4. Community/Neighborhood Health Centers | ( 4,270 ) | ( 4,000 ) | ( 270 ) |
| (a) Family Planning | | | |
| (b) Prenatal, OB-GYN | | | |
| (c) Cancer Detection | | | |
| (d) Combinations or Other | 4,270 | 4,000 | 270 |
| 5. Private Physicians | 100,410 | 98,660 | 1,750 |
| 6. Private Family Planning Groups | 19,955 | 19,588 | 367 |
| 7. Group Health Clinics | | | |
| 8. Student Health Centers | 5,749 | 5,611 | 138 |
| 9. Manpower Training Agencies | | | |
| 10. Industrial Screening | | | |
| 11. Military/Dependents | | | |
| 12. Correction or Detention Centers | 215 | 197 | 18 |
| 13. Not Specified | | | |
| 14. TOTAL NON-VD CLINICS | ( 241,420 ) | ( 233,970 ) | ( 7,450 ) |
| 15. Venereal Disease Clinics | ( 19,037 ) | ( 14,880 ) | ( 4,157 ) |
| (a) Contacts to Gonorrhea | | | |
| (b) Syphilis: Contacts/Clusters/Reactors | | | |
| (c) Other | | | |
| 16. GRAND TOTAL | 260,457 | 248,850 | 11,607 |
| 17. Number Females With Positive Culture Treated For Gonorrhea: | ▨ | ▨ | 11,432 |

# Bureau of Public Health Nursing

# BUREAU OF PUBLIC HEALTH NURSING

The Bureau of Public Health Nursing, composed of three divisions, focuses on providing administration, education and public health nursing services to state, area and local public health nursing units and to other allied health organizations and individuals.

The primary responsibility of the bureau is the establishment and maintenance of the standards of practice of public health nursing in Alabama to ensure quality services to the people served. Public health nurses, as the largest single group of health providers in the department, work with individuals, families and aggregate groups to promote healthy lifestyles through health teaching, to facilitate access to the health care delivery system, to identify and provide nursing services to the high-risk client, and to provide skilled nursing service in the home, school and work settings.

## Division of Home Health Services

During the first months of fiscal year 1984 the five counties approved and funded for expansion of home health services through the Emergency Expenditures to Meet National Needs Act of 1983 became operational. Those counties receiving a total of $292,923 under this funding were Conecuh, Geneva, Randolph, Talladega and Walker. All five counties expanded their staffs through the addition of nurses, home health aides and clerks and negotiated contracts with physical therapists, speech therapists and medical social workers. Each county exceeded its grant objectives of increasing services in underserved areas and of increasing services to the medically indigent, the handicapped and the unemployed. Concomitant with these increases the Medicare and Medicaid programs also grew. Total persons served plus total visits made in all five counties increased, and this trend is expected to continue after the grant periods end.

In January 1984 the bureau was informed by the U.S. Public Health Service, Region IV, that funds would again be available for fiscal year 1985 to expand home health services. Thirteen counties elected to submit applications for funding under this grant. Ten counties received approval with the funding awards ranging from $20,000 to $65,493. The total amount of the awards to be made to county health department home health agency subunits is $402,756. These subunits will become operational on or about October 1, 1985. Those counties receiving grant funding for the coming year are Butler, Chambers, Chilton, Clay, Cleburne, Coosa, Covington, Crenshaw, Monroe and Tallapoosa.

The knowledge that the Office of Direct Reimbursement, Health Care Financing Administration, would be eliminated became a reality in January 1984. The escalated efforts of national home care associations and providers were to no avail in preventing the phase out of the Office of Direct Reimbursement as a fiscal intermediary for Medicare providers. The home care industry did score a victory in all of its litigation in that alternate intermediaries were named in addition to the originally named regional intermediary. The regional intermediary for Alabama was Blue Cross-Blue Shield of Alabama. The alternate intermediary designated for Alabama was Prudential Insurance Company of America based in Millville, New Jersey.

In February Region IV, Health Care Financing Administration, sponsored a seminar to acquaint providers with Prudential and its operations as a Medicare intermediary which representatives from the Division of Home Health Services and the Division of Finance attended. After careful review of the capabilities and operations of the two intermediaries available, it was administratively decided that the bureau would request to become a provider serviced by Prudential. The bureau's request was submitted in February 1984 and approval of the request was granted in late March.

Once approval was obtained, the Prudential staff began working with Home Health, Finance and Health Data Systems personnel to make the transition to Prudential as smooth as possible. Prudential staff from data systems, medical review/validation and auditing visited the agency between June and October to review operations, to assist in implementing necessary changes and to identify required changes in their system to accommodate bureau systems so that the switch over to Prudential could be made as effortlessly as possible. The official transfer date to Prudential was set for October 1, 1984.

The impending transfer will not be without problems in that some data programs must be revised and some new programs implemented. A routine sampling of 20 percent of medical records for all billings submitted for payment will be requested on a weekly postpayment review basis. Such changes as these will increase personnel time which will conceivably increase total Medicare program costs. The agreement entered into between the Bureau of Public Health Nursing and the Department of Pensions and Security for local nursing staffs to provide expanded training to homemakers employed by the Department of Pensions and Security was implemented in March and completed in May 1984. The program consisted of five four-hour sessions of training and was held in 34 sites around the state. The homemakers trained will be able to provide additional services to those being served.

The advent in 1984 of the diagnosis-related groupings and prospective payment system for hospitals participating in the Medicare program had its impact on the home health industry. Under these systems patients' hospital stays are shortened in many instances which may mean that patients are sicker, requiring more intensive care, when they are referred to home health services. Some patients who in years past did not qualify for home care follow-up because of the hospital length of stay and their convalescing during institutionalization now require in-home services because their disease or injury process has not abated to the point that they can be self-sufficient in meeting their health care needs.

Subunits of the Division of Home Health Services expanded services not only because of diagnosis-related groupings and prospective payment systems but also because of increased visibility in the communities of health department personnel, quality of care rendered and active local public relations programs.

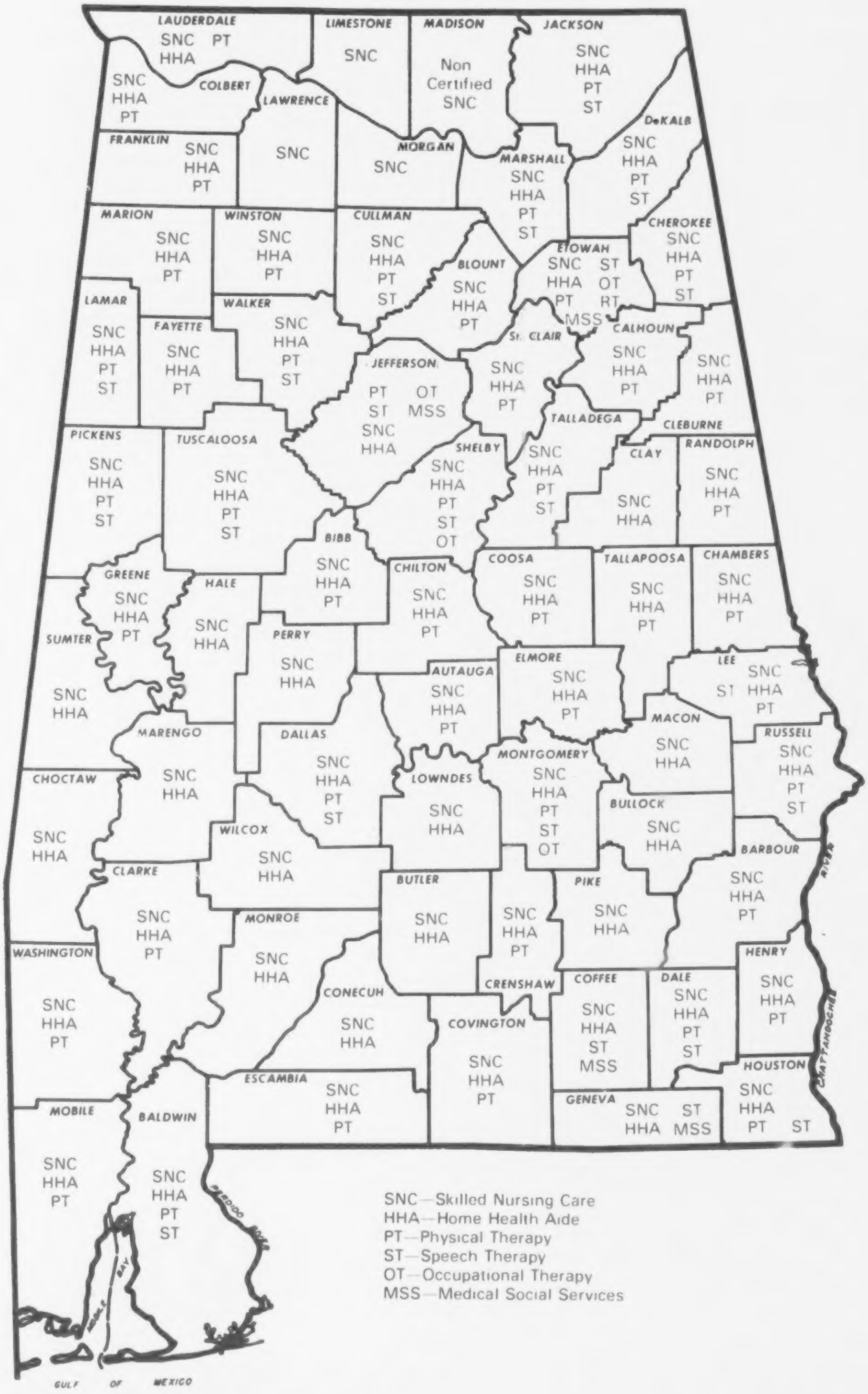
Disciplines of services offered throughout the state increased this past year. In the 58 subunits of the Division of Home Health Services which provide services in 63 counties, 100 percent provide skilled nursing and home health aide services; 72 percent provide physical therapy; and 31 percent provide speech therapy. Only two subunits provide occupational therapy; three provide medical social services and one provides respiratory therapy. The Jefferson County Department of Health is not a subunit of the Division of Home Health Services, but is a separate home health provider. Chart 10-1 indicates services provided in each subunit and Jefferson County. The Jefferson County Department of Health served 736 patients and made 54,784 visits during fiscal year 1984.

Fiscal year 1984 saw an increase in the Medicare program both in patients served, 6,777, and visits made, 165,956. During the same period in the Medicaid program 1,415 patients were served and 57,311 visits were made. In the disease and disability program 1,331 patients were served and 32,281 visits were made. The 32,281 visits in the disease and disability program include those nursing visits ordered by patients' attending physicians for services which are nonreimbursable under the Medicare and Medicaid programs, but which the bureau is obligated to provide based upon the established plan of treatment. As compared with fiscal year 1983, total patients served increased in fiscal year 1984 by 13.23 percent (Graph 10-1) and visits made increased by 28.76 percent during this same period (Graph 10-2).

As can be noted by the statistics from all county health departments participating in the home care program, all programs are expanding and will probably continue this same trend as more and more patients are referred for home health services.

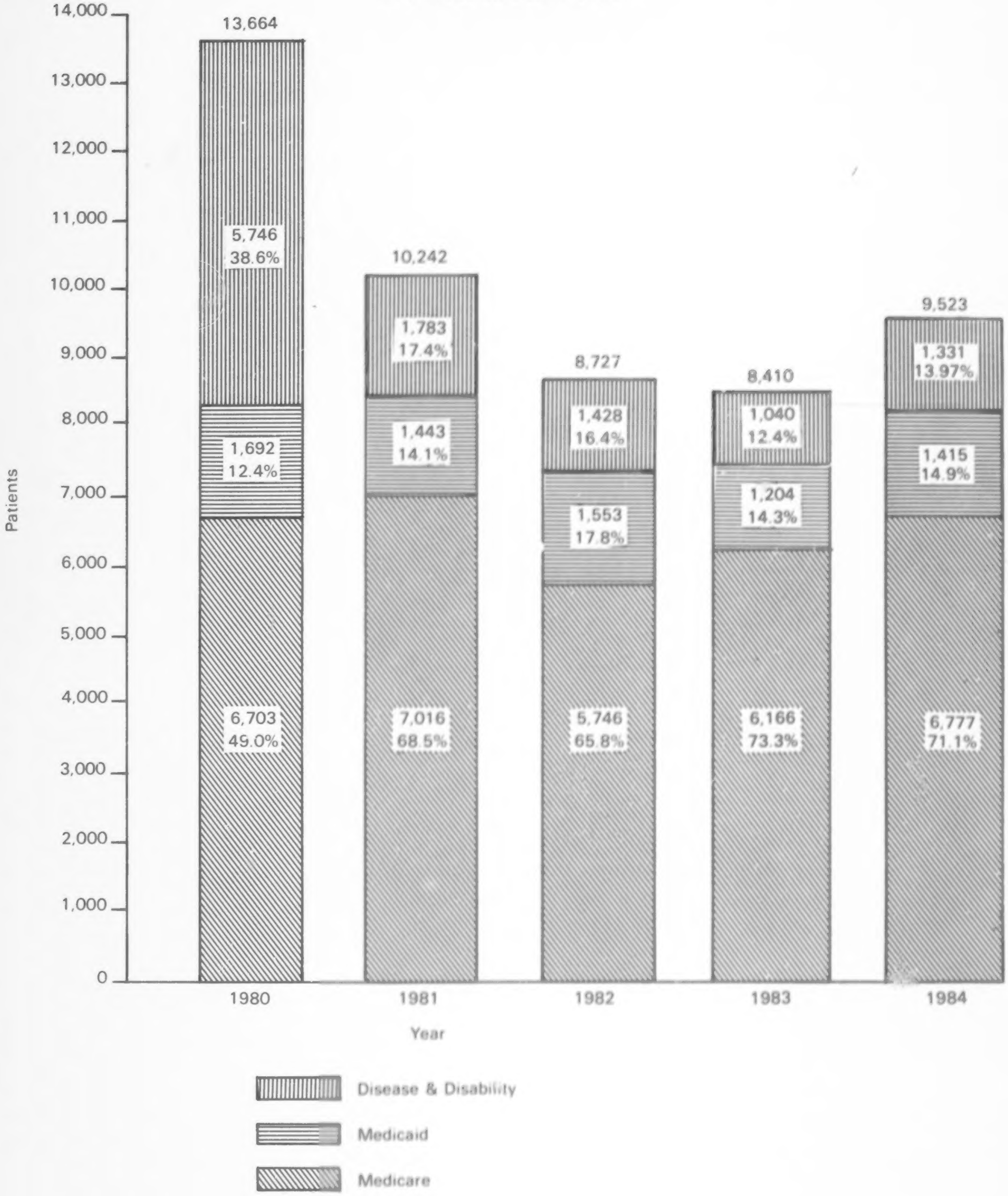
Quality patient care remains the top priority for the Division of Home Health Services and all of its subunits. This can only be accomplished through the rendering of services by skilled, knowledgeable personnel with strong administrative and management mechanisms as adjuncts to the service component of the program. Monitoring of the total program with provision of high technological educational experiences for staffs will be the major trust of the division for the coming year.

## CHART 10-1
## HOME HEALTH SERVICES AVAILABLE
## HOME HEALTH AGENCY SUBUNITS
## COUNTY HEALTH DEPARTMENTS
## FISCAL YEAR 1984

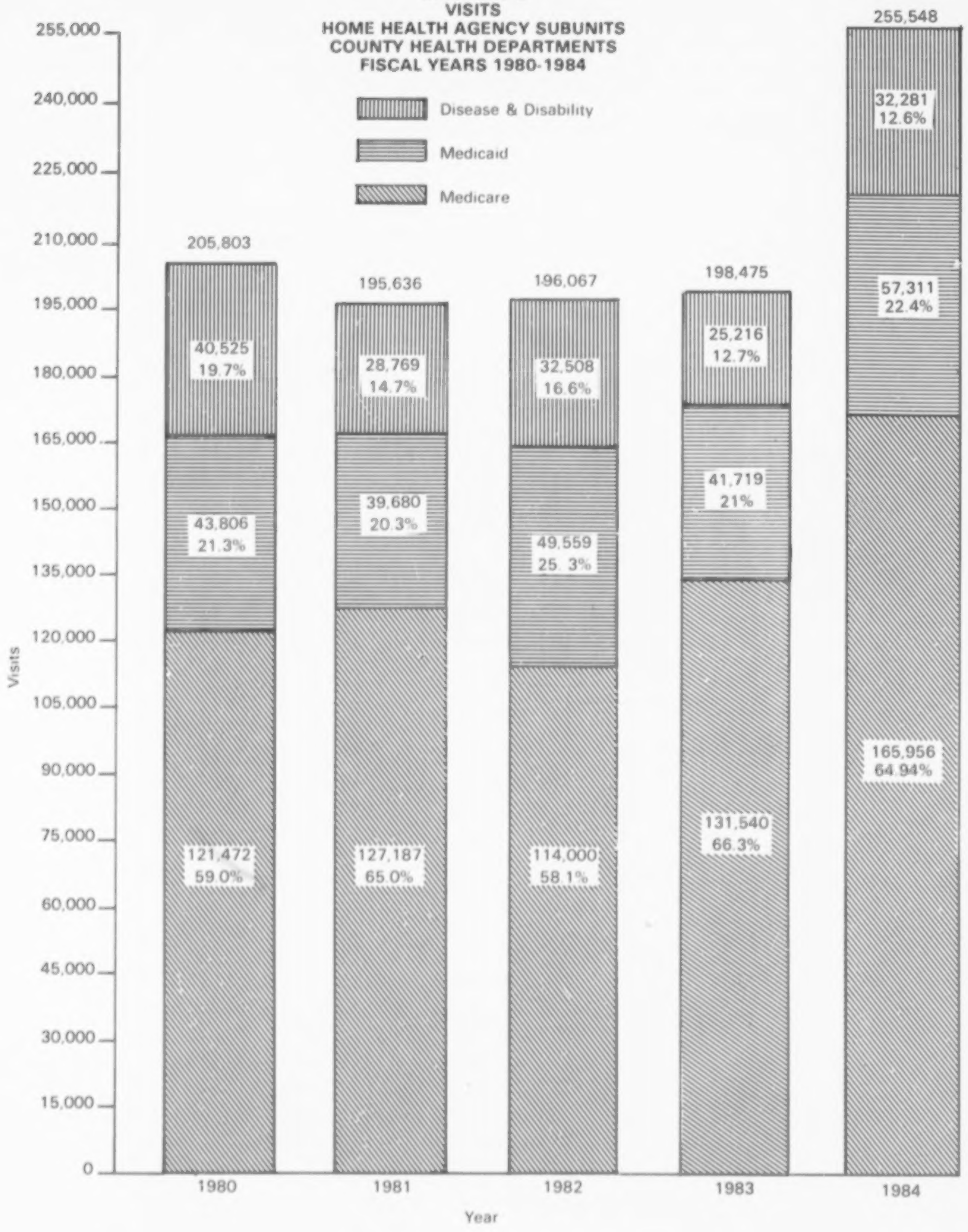

LAUDERDALE SNC PT HHA
LIMESTONE SNC
MADISON Non Certified SNC
JACKSON SNC HHA PT ST
COLBERT SNC HHA PT
LAWRENCE SNC
MORGAN SNC
DeKALB SNC HHA PT ST
FRANKLIN SNC HHA PT
MARSHALL SNC HHA PT ST
MARION SNC HHA PT
WINSTON SNC HHA PT
CULLMAN SNC HHA PT ST
BLOUNT SNC HHA PT
ETOWAH SNC ST HHA OT PT RT MSS
CHEROKEE SNC HHA PT ST
LAMAR SNC HHA PT ST
FAYETTE SNC HHA PT
WALKER SNC HHA PT ST
St. CLAIR SNC HHA PT
CALHOUN SNC HHA PT
JEFFERSON PT OT ST MSS SNC HHA
CLEBURNE SNC HHA PT
PICKENS SNC HHA PT ST
TUSCALOOSA SNC HHA PT ST
SHELBY SNC HHA PT ST OT
TALLADEGA SNC HHA PT ST
CLAY SNC HHA
RANDOLPH SNC HHA PT
BIBB SNC HHA PT
CHILTON SNC HHA PT
COOSA SNC HHA PT
TALLAPOOSA SNC HHA PT
CHAMBERS SNC HHA PT
GREENE SNC HHA PT
HALE SNC HHA
PERRY SNC HHA
SUMTER SNC HHA
AUTAUGA SNC HHA PT
ELMORE SNC HHA PT
LEE SNC ST HHA PT
MARENGO SNC HHA
DALLAS SNC HHA PT ST
MACON SNC HHA
RUSSELL SNC HHA PT ST
MONTGOMERY SNC HHA PT ST OT
LOWNDES SNC HHA
CHOCTAW SNC HHA
WILCOX SNC HHA
BULLOCK SNC HHA
BARBOUR SNC HHA PT
CLARKE SNC HHA PT
BUTLER SNC HHA
PIKE SNC HHA
CRENSHAW SNC HHA PT
MONROE SNC HHA
WASHINGTON SNC HHA PT
HENRY SNC HHA PT
CONECUH SNC HHA
COFFEE SNC HHA ST MSS
DALE SNC HHA PT ST
COVINGTON SNC HHA PT
ESCAMBIA SNC HHA PT
GENEVA SNC ST HHA MSS
HOUSTON SNC HHA PT ST
MOBILE SNC HHA PT
BALDWIN SNC HHA PT ST
CHATTAHOOCHEE RIVER
PERDIDO RIVER
MOBILE BAY
GULF OF MEXICO

SNC—Skilled Nursing Care
HHA—Home Health Aide
PT—Physical Therapy
ST—Speech Therapy
OT—Occupational Therapy
MSS—Medical Social Services

## GRAPH 10-1
## NUMBER OF PATIENTS
## HOME HEALTH AGENCY SUBUNITS
## COUNTY HEALTH DEPARTMENTS
## FISCAL YEARS 1980-1984



### GRAPH 10-2
### VISITS
### HOME HEALTH AGENCY SUBUNITS
### COUNTY HEALTH DEPARTMENTS
### FISCAL YEARS 1980-1984



## Division of Support Services

The division is responsible for providing support services for nursing personnel on state and local levels. Recruitment of nursing personnel is accomplished by working closely with the Division of Personnel and Training Services. Table 10-1 provides information about nurses from throughout the state.

### TABLE 10-1
### NURSING PERSONNEL SUMMARY INFORMATION
### 1984

| Nursing Personnel | No. in Merit System | No. on Contract | Total |
|---|---|---|---|
| Bureau Staff RNs | 11 | | 11 |
| State Staff RNs | 36 | | 36 |
| Area Nursing Staff RNs | | | |
| Area I | 79 | 12 | 91 |
| Area II | 22 | 2 | 24 |
| Area III | 121 | 11 | 132 |
| Area IV | 70 | 31 | 101 |
| Area V | 108 | 16 | 124 |
| Area VI | 98 | 1 | 99 |
| TOTAL RN NURSING STAFF | 545 | 73 | 618 |
| Licensed Practical Nurses | 13 | 1 | 14 |
| Health Services Aides | 141 | 128 | 269 |
| TOTAL NURSING PERSONNEL | 699 | 202 | 901 |
| Educational Preparation* | | | |
| Diploma/Associate Degree | | | 386 |
| Baccalaureate Degree | | | 139 |
| Master's Degree | | | 17 |
| Master's Degree in Public Health | | | 3 |
| TOTAL | | | 545 |
| Nurse Practitioners and Nurse/Midwives | | | 30 |
| Adult/Family Health | | | 2 |
| Obstetrics/Gynecology | | | 25 |
| Pediatric | | | 3 |
| Nurse/Midwife | | | 0 |
| TOTAL | | | 30 |

*In addition to the above, three nurses have been certified in community health nursing.

During 1984 the bureau received and reviewed 54 applications for positions as public health nurses. These applications were forwarded to the Division of Personnel and Training Services for grading and classification. Twenty-nine nurses were promoted to higher classifications during the year, and 69 nurses were employed. Resignations totaled 35 and there were seven retirements, one of which was a disability retirement.

Major health program areas where nurses provide primary responsibility or nursing services include:

- Adult Health
- Cancer Detection
- Child Health
- Epidemiology
- EPSDT
- Family Planning
- Genetic Counseling
- Hypertension
- Home Health
- Immunization
- Maternal Health
- School Health
- Sexually Transmitted Diseases
- Sudden Infant Death Syndrome
- Tuberculosis Control
- WIC

### TABLE 10-2
### RATIO OF REGISTERED NURSES IN PUBLIC HEALTH TO POPULATION
### 1984

| Area | Population* | Nurses (RN) Full-Time Employees | Ratio (1:5,000) |
|---|---|---|---|
| PHA I | 757,752 | 80 | 151.5 |
| PHA II | 236,632 | 22 | 47.3 |
| PHA III | 914,558 | 120 | 182.9 |
| PHA IV | 504,679 | 70 | 100.9 |
| PHA V | 773,091 | 108 | 154.6 |
| PHA VI | 707,576 | 98 | 141.5 |

*Population figures obtained from *Alabama County Data Book 1983*, Alabama Department of Economic and Community Affairs, Office of State Planning and Federal Programs, Montgomery, Alabama.

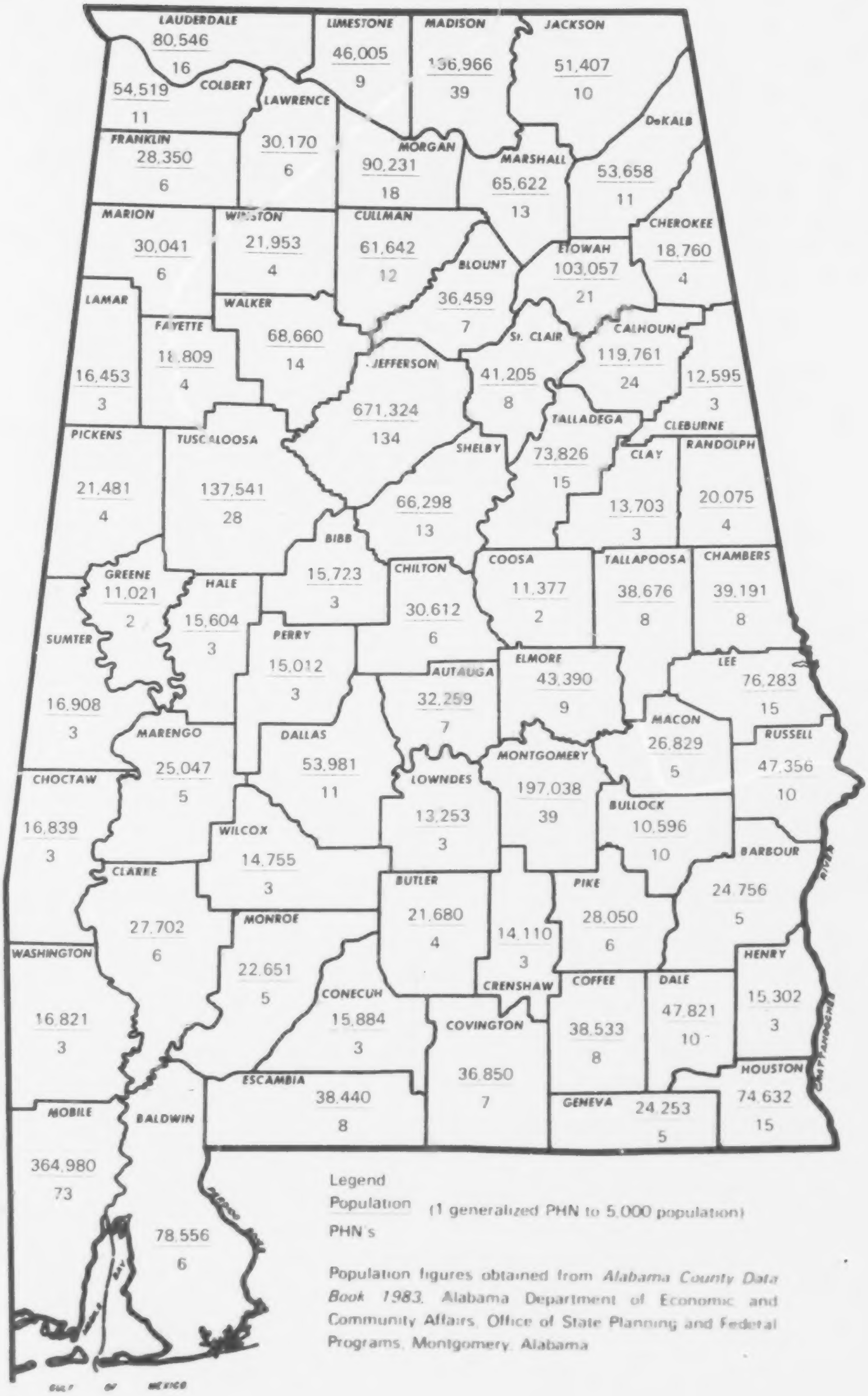
The latest edition of *Principles of Public Health* noted that a 1978 report indicated a need for approximately 103,217 community health nurses by 1982. Of this number, 52,308 were identified for general public health. Most commonly accepted is the ratio of one nurse to 5,000 people when planning to meet nursing needs in communities. The ratio of 1:2,500 is accepted when there is an active home health program. Chart 10-2 shows each county's ratio of population to public health nurses.

In 1984, a collaborative endeavor between representatives of the State Board of Education and the State Board of Health formed a committee to implement the 1984 Senate Joint Resolution 62 which directed a scoliosis program for school children ages 11 through 14.

The "Alabama Public School Scoliosis Screening Procedure Manual" was developed and distributed to school and public health personnel throughout the state. Training programs were planned for selected school personnel and public health nurses. Statistical data will be submitted to the Bureau of Public Health Nursing for compilation and evaluation of the program. The public health nurse will play a major role in coordinating the rescreening and referral activities. A film for use in teaching the screening process has been purchased and a slide presentation for student education has been distributed to each public health area.

Members of the bureau staff have been involved in the promotion of school health nursing services on a statewide basis. Studies indicate that organized components of public health nursing that focus on the health and health potential of the school-age population would result in an environment conducive to learning. Emphasis should be on health assessment, referral for health problems and identification of potential or high-risk conditions. Attention to the health needs of youth will result in healthier and more productive adults.

## CHART 10-2
## POPULATION/PUBLIC HEALTH NURSE RATIO


LAUDERDALE
80,546
16
LIMESTONE
46,005
9
MADISON
136,966
39
JACKSON
51,407
10
COLBERT
54,519
11
LAWRENCE
30,170
6
FRANKLIN
28,350
6
MORGAN
90,231
18
MARSHALL
65,622
13
DeKALB
53,658
11
MARION
30,041
6
WINSTON
21,953
4
CULLMAN
61,642
12
BLOUNT
36,459
7
ETOWAH
103,057
21
CHEROKEE
18,760
4
LAMAR
16,453
3
FAYETTE
18,809
4
WALKER
68,660
14
JEFFERSON
671,324
134
ST. CLAIR
41,205
8
CALHOUN
119,761
24
12,595
3
CLEBURNE
PICKENS
21,481
4
TUSCALOOSA
137,541
28
SHELBY
66,298
13
TALLADEGA
73,826
15
CLAY
13,703
3
RANDOLPH
20,075
4
BIBB
15,723
3
GREENE
11,021
2
HALE
15,604
3
CHILTON
30,612
6
COOSA
11,377
2
TALLAPOOSA
38,676
8
CHAMBERS
39,191
8
SUMTER
16,908
3
PERRY
15,012
3
AUTAUGA
32,259
7
ELMORE
43,390
9
LEE
76,283
15
MARENGO
25,047
5
DALLAS
53,981
11
MACON
26,829
5
RUSSELL
47,356
10
MONTGOMERY
197,038
39
LOWNDES
13,253
3
BULLOCK
10,596
10
CHOCTAW
16,839
3
WILCOX
14,755
3
BARBOUR
24,756
5
CLARKE
27,702
6
BUTLER
21,680
4
14,110
3
CRENSHAW
PIKE
28,050
6
MONROE
22,651
5
WASHINGTON
16,821
3
CONECUH
15,884
3
COFFEE
38,533
8
DALE
47,821
10
HENRY
15,302
3
COVINGTON
36,850
7
ESCAMBIA
38,440
8
HOUSTON
74,632
15
GENEVA
24,253
5
MOBILE
364,980
73
BALDWIN
78,556
6
GULF OF MEXICO
CHATTAHOOCHEE
RIVER

Legend
Population (1 generalized PHN to 5,000 population)
PHN's

Population figures obtained from *Alabama County Data Book 1983*, Alabama Department of Economic and Community Affairs, Office of State Planning and Federal Programs, Montgomery, Alabama

Public health nursing directors and consultants have been providing assistance to baccalaureate degree school of nursing faculty and public health area and county nursing staffs in executing and updating contracts for student experiences. Much planning has gone into providing public health nursing experiences by both the schools of nursing and the public health agencies. Presently there are seven operational contracts. Letters of agreement have been approved for short-term individual student experiences where it was determined appropriate for both staff and student. Five students participated during 1984.

Two nursing candidates for the Master of Science degree in nursing utilized public health clinics or clients for research in writing their theses. A member of the bureau staff served as preceptor for one Master of Science in nursing candidate during the year. The exchange of service and education is beneficial and will be encouraged to further promote quality nursing services and as a recruitment tool for prepared staff. Bureau nursing staff serve as guest lecturers to universities and colleges for students at the baccalaureate and master's level. Staff also serve as adjunct faculty members.

Public health nursing directors and consultants have worked with numerous organizations and associations to promote public health services on the local, regional, area, state and national levels. Groups in which there is involvement include, but are not limited to, regional perinatal advisory committees, genetic task forces, home health task forces, Alabama Association of Home Health Agencies, Alabama Lung Association, Commission on Nursing, Alabama State Nurses' Association, National Association of Home Care, National League for Nursing, Alabama Public Health Association and Southern Health Association.

Two members of the bureau staff are involved on the national level in the credentialing process of community nursing and review of continuing education providers.

Public health nurses in leadership roles are becoming more cognizant of the need to influence policy for the public's welfare—policy that will affect the health of current and future generations. Nurses are joining forces with all members of the public health team in accomplishing the defined goals of the department.

## Division of Planning, Training and Evaluation

One of the primary goals of the Bureau of Public Health Nursing is to provide educational programs and experiences which will enhance the knowledge and skills of the public health nurse providing nursing service to patients in their homes, clinics, schools, day care centers, places of employment, or wherever needed in the community.

To identify, properly refer and follow through on a child abuse patient is a real challenge faced by public health nurses. The changing patterns and mores of aggregates of the community are a continuous challenge to nursing. The impact of new knowledge in the medical treatment and nursing care given to patients with various diseases or surgical conditions is being felt throughout the health community. The introduction of diagnosis-related groupings has challenged public health nurses to become proficient in high-technology procedures which previously had been carried out in well-controlled hospital environments.

In 1983, the department's annual report noted that 342 nurses attended a staff development program on sexually transmitted diseases and "public health nurses were made aware of the health problem of Acquired Immunodeficiency Syndrome (AIDS) and have had the opportunity of following the developing information on this disease." A year later the health professional has an evolving role in counseling and education on this disease.

Staff development programs are conducted throughout the state three times each year in the 14 sites. During 1984 the following programs were identified and addressed

1. Crippled Children Services and Public Health Concerns

   Emphasis was on Crippled Children Services as a referral source, follow-up procedures, and introduction of their personnel on a local, area and state level. A total of 334 public health nurses attended this program. It was felt that the sharing of knowledge and information will benefit both agencies as they provide comprehensive health services to patients. The success of the development and implementaton of the scoliosis screening program can be attributed in part to the cooperation of the Crippled Children Services' personnel (nurses, physical therapists, medical social workers) and public health nurses, based on their experience with each other in this educational activity.

2. The Public Health Nurses's Role in Dental Health

   The knowledge, expertise and professionalism of the staff of the Bureau of Dental Health provided 302 public health nurses with knowledge in the field of dental health and practical and pertinent information on current health teaching and techniques.

   The evaluations indicated new knowledge was obtained which would benefit the individual's own dental health and would also assist in meeting the dental health needs of the infant, child, adult and geriatric patient.

3. Drug Abuse: Public Health Implications

   Department of Mental Health professionals throughout the state provided 295 public health nurses with an informative, updated program on the serious public health problem of alcohol abuse with suggestions and recommendations for identification of patient or patient-at-risk, referral sources, follow-up, and counseling support for patient and family members. The public health nurse deals with the alcohol abuse problem as she provides services to the maternal patient, the newborn alcoholic or drug syndrome infant, the adolescent in school health, the tuberculosis patient or the home health patient. The nurses's knowledge in this area is of tremendous value in meeting the health needs of those she serves.

Biannual workshops for home health aides who are involved in providing personal care services to patients receiving home health care included topics on:

1. Hypertension and Stress (11 sites statewide)

   In planning to meet the home health aide's educational needs, it was recognized that many of the aides themselves were either "at risk" for developing hypertension, were under current medical treatment, or had case loads which had a high number of patients being treated for hypertension. Therefore, this topic was selected to increase the aides' knowledge and understanding. Stress was discussed as it relates to the disease condition and also from a preventive standpoint. Stress reduction was emphasized with specific coping mechanisms to reduce tension. These workshops were attended by 173 aides and 33 public health nurses.

2. Spinal Cord Injured Patients and Ethics

   Multiple problems are involved in providing personal care services to patients with paralysis due to spinal injury and application is also made for those patients who have had strokes. Ethics is always a topic of concern and needs to be addressed periodically. This workshop was attended by 176 aides and 33 public health nurses.

The home health coordinators' workshop was held in August with 80 public health nurses in attendance. The topic was "Home Care: Issues and Answers." The featured speaker was the director of Medical Review and Compliance, Prudential Insurance Company of America, the new fiscal intermediary for the Division of Home Health Services. She presented information and guidelines to assist in a smooth transition from one fiscal intermediary to another.

Under contract with the Department of Pensions and Security, the bureau had major responsibility for planning and coordinating 32 homemaker training sessions in 28 sites in the state. A total of 1,497 homemakers employed by the Department of Pensions and Security were trained by local public health nursing staffs.

The public health nursing state orientation program was conducted in June of 1984 with 16 participants.

Sixty-eight public health nursing supervisors attended a two-day workshop in Birmingham on November 27 and 28. The topic, "A Decade Ahead in Public Health Nursing," focused on issues and trends of the future.

Fifty-six public health nurses had an opportunity to attend the sickle cell counseling workshop developed by the Laboratory of Medical Genetics, University of Alabama at Birmingham, and co-sponsored by the Family Health Administration and the Bureau of Public Health Nursing. Expert faculty provided a valuable learning experience.

Staff of this division assisted the Baldwin, Blount, St. Clair and Walker county health departments in the development of a slide presentation depicting public health services provided by each of these health departments. These slides will be used as a marketing tool to inform the community of the services provided by the local county health department.

Members of this division recently reorganized the bureau resource center to make it more functional. This required the relabeling and recording of more than 300 books and approximately 20 journals. Books are cross filed under subject category. This resource is available and widely used by public health nurses and students.

"The Home Health Aide Manual" is presently being updated and revised. "The Public Health Nursing Procedure Manual" is under continuous revision and updating as required.

A committee consisting of bureau staff and public health nurses from throughout the state is working on the revision of nursing records. This committee is also exploring the utilization of computers for nursing.

Mini-workshops will be the format used to teach public health nurses the highly technical procedures being required by the referral of patients to home care. These workshops are being developed for use early in 1985.

This division will be involved in working with the nursing supervisors to assist them in learning and updating their skills. A supervisor's manual is in the planning stage.

In the coming year the bureau will strive to provide direction to public health nurses to increase their knowledge base and their productivity. The bureau also will be reassessing the standards of public health nursing practice to determine if they are being met. The orientation and supervisor programs will be a priority.

Public health nurses, like most people, want their work to be meaningful and challenging. On this premise, this division will provide educational activities and will assist the nurse in attaining these goals; thereby assuring better public health nursing care for the communities and patients they serve.

# Special Services Administration

# SPECIAL SERVICES ADMINISTRATION

The Special Services Administration provides services to the general public and to other units of the Alabama Department of Public Health. This administration is responsible for supervising the Bureau of Health Data Systems, the Bureau of Primary Prevention and the Bureau of Vital Statistics. The administration director continues to serve as state registrar and director of the Bureau of Vital Statistics. The administration establishes the operating policies and procedures and administers the effectiveness and efficiency of each unit.

The administration provides professional and technical assistance by serving data processing needs through the Bureau of Health Data Systems, by promoting healthier lifestyles through the Bureau of Primary Prevention, and by maintaining records of vital events through the Bureau of Vital Statistics. The Bureau of Vital Statistics is responsible for carrying on a statewide system of registration, preparation, collection, analysis and presentation of data on births, adoptions, legitimations, deaths, marriages and divorces in Alabama.

A report of the activities of the three bureaus during 1984 follows.

## BUREAU OF HEALTH DATA SYSTEMS

The Bureau of Health Data Systems is responsible for developing and maintaining computer systems and providing data services for 23 users within the Alabama Department of Public Health. The major objective for fiscal year 1984 was to continue to provide an increased level of service. In order to do this and meet an increased workload it was necessary to implement a new data entry system, the IBM Series 1, and a new second data entry shift which operates from 4:30 p.m. until 1:30 a.m.

### Data Services Division

The Data Services Division now consists of one manager of data services, 21 data entry operators, two data entry supervisors, two computer operators, one computer operations supervisor, and three data control librarians. The data entry staff handled an increased workload of 10 percent or 396 million characters of data. Operations and production control produced 42,000 jobs consisting of 90 million lines of printed output.

### Technical Services Division

The Technical Services Division is responsible for maintaining existing computer programs, altering existing programs, and writing and testing new programs.

During the year major efforts and improvements occurred in services to the following units of the health department: Division of Finance, cost accounting; Personnel Division; Division of Emergency Medical Services; Bureau of Inspection, Dairy Inspection; Family Health Administration, WIC programs and Cancer Detection; and Bureau of Preventive Health Services, Division of Tuberculosis Control and Division of Venereal Disease Control. The installation of the new data entry system for the bureau was also a substantial improvement.

Major development areas planned for 1985 include the Division of Finance, the Bureau of Vital Statistics, the Family Health Administration and the Bureau of Preventive Health Services. These areas are expected to be expanded to more state-of-the-art techniques during the year, including on-line processing.

## BUREAU OF PRIMARY PREVENTION

As the health education/information unit of the Alabama Department of Public Health, the Bureau of Primary Prevention serves the general public as well as health professionals. The bureau is the focal point for health education, public information and publications for the department. Its purpose is to improve the quality of life for the people of Alabama by promoting the principles of good health. Its activities are designed to assist individuals in making informed decisions about health and to motivate them in adopting health lifestyles. Thereby it functions as a fundamental component in preventing disease, alleviating suffering and achieving optimal health.

The bureau staff influence public health through media contacts, community programs, printed materials, leadership roles in professional organizations, and cooperation with other agencies and programs.

### Division of Graphic Communication

The Division of Graphic Communication, a support service unit of the health department, facilitates health care with quality printing for state and local levels of public health. These services are composed of four procedures—printing coordination, photography, typesetting and illustrative arts. Typical materials prepared and printed include business cards, labels, bumper stickers, forms, graphs, transparencies, slides, letterheads, certificates, books, brochures, photographic and artistic illustrations for speeches.

After two years of decreases in amount of printing, there was a substantial increase in 1984. The 1,353 requests—27.2 percent more than in 1983—resulted in 29,430,466 impressions, or 67.4 percent greater than in 1983. Funds expended for printing increased 49.4 percent. Table 11-1 gives a breakdown of printing activities by month.

### TABLE 11-1
### DEPARTMENT PRINTING
### FISCAL YEAR 1984

| Month | Requests | Impressions | Cost |
|---|---|---|---|
| October | 77 | 796,244 | $13,698.97 |
| November | 125 | 2,770,536 | 29,489.16 |
| December | 83 | 2,511,743 | 31,151.36 |
| January | 83 | 2,241,249 | 21,364.82 |
| February | 120 | 2,551,853 | 29,013.61 |
| March | 131 | 2,065,858 | 22,734.47 |
| April | 122 | 1,510,634 | 20,960.64 |
| May | 156 | 3,747,625 | 37,605.57 |
| June | 93 | 3,200,460 | 34,754.08 |
| July | 113 | 2,735,246 | 23,530.36 |
| August | 184 | 3,570,623 | 35,802.90 |
| September | 66 | 1,728,395 | 21,760.05 |
| TOTAL | 1,353 | 29,430,466 | $321,865.99 |

The health officer's report to the Medical Association of the State of Alabama and to the Alabama Public Health Association is a major cooperative effort. The slide presentation involves the typesetters and artists as well as the photographers. In addition to pictures of people and events, the slides depict public health activities with graphs, charts, diagrams, tables and creative art work.

Preparation for printing also requires the expertise of these units of the division. The typesetters prepare the copy; the artists paste up the copy and design illustrations. The photographic illustrations, reductions and enlargements are the contributions of the photographers.

The typesetters produced copy for professional quality printing for 1,501 jobs. Thirty-seven of these were books which ranged from some 20 pages to the 200-page annual report for the department or the 260-page report for the Bureau of Vital Statistics. Some books were just straight copy while others contained graphs, charts and tables which required figuring tabulations. Forty-two book covers, 24 brochures, 117 transparencies, five envelopes, nine newsletters, 75 certificates, 25 charts and 29 posters were some of the items which required typesetting.

During fiscal year 1984, the artist/illustrators produced 6,651 pieces of work. Some of these were simple paste-ups and required a minimum of time and effort. Many of the paste-ups used block outs for pictures—the more pictures, the more time required. Some pasting requires layouts and overlays with registration. The artists do lettering for citations and certificates. The meticulously drawn lines enhance the appearance of graphs, charts, tables and forms. Artists contribute to the preparation of newsletters, calendars, organizational charts, slides and transparencies.

The creativity of the artists is fully utilized in designing and producing posters, exhibits, covers and divisional pages for books. Sometimes the artist originates the design, but other works are the artistic representation of other peoples' ideas.

The contributions of the photographers totaled 8,912 slides and prints. The 1,238 PMTs which they made facilitated the work of the artists. Materials were reduced or enlarged to fit the plan of the artists. Many of the 2,108 prints were used in publications of the department. The photographers made 3,579 color and 1,331 black and white slides. They were responsible for 633 overhead transparencies. The photographers also produced 14 video and nine slide programs. They were repeatedly called on to set up for meetings, thereby serving other groups of the department.

Graphic Communication staff do not work in isolation. The work requires the cooperative expertise of the entire staff.

## Division of Health Education

Health education is the structured process of presenting basic health knowledge and learning opportunities designed to motivate individuals to assume personal responsibility for adopting activities, attitudes and principles which are conducive to good health. The individual in turn stimulates his community in reinforcing positive health practices so that the general health status is improved. The role of the Division of Health Education is to provide methods, incentives and resources for the individual and the community to achieve the greatest potential for good health.

Various activities were conducted to enhance the health and well-being of the citizens.

The most extensive program was the promoting of seat belt usage. Initiated at the beginning of fiscal year 1984, the Occupant Restraint Program, funded through the Office of Highway and Traffic Safety, was continued for 1985. Following the writing and approval of the grant, the employee assigned to the program attended conferences to learn about other programs and to formulate ideas for the Alabama program. The plan for implementing the program began with a survey to secure a data base of usage. Bumper stickers, brochures, billboards, television and radio appearances, and displays were used to encourage the public to buckle up. The governor's proclaiming June as Passenger Safety Month was publicized with news releases to the print and electronic media.

Much of the last quarter of 1984 was devoted to an incentive program at a Montgomery high school. The health educator spoke to all sophomore classes and showed films on passenger safety after conducting a visual survey of usage. Rewarding those observed with their seat belts fastened followed. Early results indicate that seat belt usage has increased.

The division staff has been assisting the health educator in Public Health Area IV to start a similar program in Anniston.

Another activity was conducting investigations for Consumer Product Safety Commission to determine if certain products conform to safety standards. Baby crib standards are not always met in imported products and products of limited distribution. Seven inspections were made of distributors of these types of cribs. Five inspections were made to determine if architectural glazing is appropriately used in glass installations. Ten recall effectiveness checks were made.

CPSC collects data on product related injury to ascertain if standards were violated or if the standards need to be developed or changed. Five on-site and 20 telephone investigations were made. During these, five samples were collected.

During 1984 the *Directory of Community Health Education Programs* was updated. The revisions did not merit reprinting the publication; therefore the changes were compiled and 400 addenda were distributed.

A directory was compiled to provide information to individuals interested in pursuing a health career. The *Health Careers Directory* gives professional associations, licensing or regulating organizations, approved state schools and publications for 32 health professions. Interest in the project was such that 280 copies were printed, of which 180 were distributed.

Buckle Up
Your Child!
It's The Law!

The division assisted in revising the health education section of the State Health Plan.

Health educators made 32 presentations to promote health. These included talks to Girl Scout leaders, passenger safety promotion, information on health department services available to public health nurses and social workers, explaining Alabama programs at national conferences, and a workshop for Head Start teachers and parents.

The staff helped in planning conferences and participated as speakers. In addition they attended meetings and conferences to increase their proficiency and to represent the health department.

To support health promotion, bureau staff have served on committees, boards and task forces.

Federal grants supplement state funds to provide health education activities. A Risk Surveillance Telephone Survey Grant was drafted but not funded. The Risk Appraisal Grant and the Preventive Health Block Grant did produce funds.

The Centers for Disease Control selected the health department as one of 20 focal points for the dissemination of information on the computerized Health Risk Appraisal. The appraisal uses statistical information to predict an individual's risk of death based on medical history and lifestyle activities with the objective to motivate a more positive lifestyle and better health. Program responsibilities include responding to requests for information as well as providing technical assistance, training and counseling to current and prospective users of the Health Risk Appraisal. Currently three academic institutions, two health care groups and one community group are users. Six inquiries about purchasing the software have been received. The bureau director attended the training session at the national meeting of the Society of Prospective Medicine in Indianapolis.

The Centers for Disease Control has developed a capacity building and technical assistance program to be used by cooperating state health agencies for community-based health education and health promotion programs. The goal is to provide better understanding of the process of activating community health education and health promotion and to build fundamental concepts and skills. The Bureau of Primary Prevention is serving as the liaison with CDC and the Chambers County Health Council to develop a model project. The organizational meeting was held in December.

The revision of the *Film and Resource Catalog* was completed in 1984. With the acquisition of a computer terminal, the film library now has a completely computerized program for distributing films. The library filled 7,500 requests from 9,000 received. Some borrowers do not report attendance; so from those reporting approximately 360,000 persons viewed the films. To improve service, 25 new or second copy films were acquired.

The audiovisual technician filled 961 requests for service. Audiovisual equipment and education displays were lent. Whenever requested the technician helped set up for programs and operated equipment.

## Division of Health Information

The purpose of the Division of Health Information is to provide timely, accurate health-related information to professionals and the general public. The division assists other units of the department in securing, preparing and distributing information on their activities. Services of the division which are also available to county health departments take several forms. Printed materials, oral presentations and research are basic to the division.

*Alabama's Health*, news releases, articles, public service announcements and brochures are typical printed materials. *Alabama's Health*, the department's monthly news magazine, contains information about health services, people, problems and progress. Approximately 1,500 copies are distributd each month to health personnel and other interested persons.

News releases were submitted to both the print and electronic media. Health articles were written for various publications, including *Alabama's Health*. These and public service announcements totaled 6,041 in fiscal year 1984.

In response to requests, 406,206 brochures were distributed. Two new titles were added to the list of publications. Directories, reports, calendars and other similar publications added an additional 150,000 documents which the bureau distributed.

The librarian served public health by searching for information, securing books and scheduling conferences. In addition to the printed documents released through the library, the librarian charged out 37 books, secured 220 books through interlibrary loan, answered 217 requests for information and scheduled 120 meetings.

The division staff participated in several special activities. The most long lasting was the Child Restraint Program. Presentations were made to civic organizations, school classes and other state agencies to inform them of the need for children to be properly restrained in automobiles. Promoting loan programs has resulted in the expansion of existing programs and the start of others. Television and radio talk shows provided audiences for promoting child restraint usage. Surveys to determine usage indicate that the program has been successful. The October 1984 survey indicated that 23 percent of the children are in restraints, up from the 7.9 percent of the first survey in June 1980.

Bureau staff assist the Bureau of Radiological Health by serving as information officer during the nuclear plant exercises. Farley Nuclear Plant conducted two drills and Browns Ferry Plant held one exercise in 1984. In preparation for each exercise, numerous meetings with the utilities and other state agencies are necessary.

The Bureau of Licensure and Certification asked Primary Prevention to complete the contract with the Food and Drug Administration to inform hospitals in Alabama of a central system for reporting problems with medical devices. During 1984 Primary Prevention staff visited 67 hospitals. With visits by both bureaus 74 percent of the hospitals had been informed of the program by the end of the year.

The bureau cooperated with the Alabama Medicaid Agency in developing a series of radio programs. These informational programs, distributed to radio stations statewide, highlight departmental programs along with programs of other state agencies.

The Commission on Aging was the agency selected to implement the Heat Injury Prevention Program of the Department of Health and Human Services. The Bureau of Primary Prevention coordinated health promotion activities to protect the elderly during times of extreme temperatures.

The staff assisted local health officers regarding public relations efforts. Writing and editing assignments helped others in public health with their activities.

## BUREAU OF VITAL STATISTICS

### Division of Microfilm Services

The Division of Microfilm Services consists of 10 full-time employees who are responsible for microfilming and reproducing vital records for the Bureau of Vital Statistics. During 1984 this division received, microfilmed and bound into permanent volumes 57,765 births, 37,025 deaths, 652 fetal deaths, 47,834 marriages, 25,327 divorces and 11,200 affidavits. From these 179,803 vital records, 227,691 certified copies were produced of which 81,534 were produced from microfilm. Also during the year, birth certificates for years 1981, 1982 and 1983 were microfilmed bringing the total birth certificates on microfilm from 1908 to 1984 up over 5½ million.

Several state agencies took advantage of the microfilm services offered by this division. Once again, WIC was the primary benefactor as nearly 2½ million WIC vouchers were microfilmed in 1984. Since WIC began in 1974, the division has microfilmed more than 12½ million vouchers. Also during 1984, more than 141,000 copies of health personnel records and more than 170,000 copies of state health laboratory records were microfilmed. Other state agencies utilizing the division's services were Engineers and Land Surveyors Board, State Personnel Board, State Treasurer's office, and the Department of Education Teacher Certification.

The division continued to maintain and upgrade the 21,500 volumes of vital records in the storage vault. Approximately 850 volumes were rebound and over 500 new volumes were added.

To maintain consistency in the quality of microfilm and certified copies, the division purchased a new densitometer. This device checks the density at the beginning and ending of each roll of microfilm to determine if any fluctuation has occurred. Density is the measurement of lightness, darkness and contrast. These three factors determine the quality of the certified copies that are produced from microfilm.

During 1984 a new microfilm processor was purchased and installed. Over 152,000 feet of microfilm were processed.

The goals of the Division of Microfilm Services are to offer its services to more state agencies and to search for more efficient ways in which the general public may be served more expeditiously.

### Division of Record Services

The primary responsibility of the Division of Record Services is to provide the general public with certified copies of vital records and special record services; to provide administrators and governmental agencies with noncertified copies for use in research projects; and to preserve all existing records and legal documents that are stored in the storage vault and sealed confidential files.

Some of the services performed are preparing new birth certificates after legitimation, adoption and circuit court actions; amending vital records; issuing certified copies; and issuing certificates of failure to find if the record is not found to be recorded.

New birth certificates for 2,456 persons who were born in Alabama and adopted were 216 fewer than last year. Certificates of birth were prepared for 726 persons that were born out of the state of Alabama and this was also a decrease of 71. The 2,546 new birth certificates that were prepared for legitimated individuals were 238 more than last year.

The Uniform Parentage Act was passed in the summer legislative session and 135 new birth certificates were prepared accordingly. This act appears to be primarily directed toward a child having two parents shown on his birth certificate and in the child receiving child support. The act failed to actually provide for a change of name for the child. Only eight court actions out of the 135 taken directed the bureau to change the name of the child to the father's name for the birth certificate.

Birth amendments numbered 9,581 for an increase of 1,030. Death amendments filed numbered 145 for an increase of 30 and marriage amendments increased by five for a total of 45.

The 57,264 certified copies issued at the service counter and the 170,427 that were issued from mail requests made a total of 227,691 for a slight decrease of 820. The number of certified copies issued on births increased by 6,888 and copies issued on deaths decreased by 12,575. Forty-eight local county health departments have been approved by the State Board of Health to issue certified copies of death certificates, so this decrease was expected.

There was a decrease of 9,562 pieces of mail received this year for a total of 166,558 pieces. More hospitals comply with the law directing them to collect a fee for a certified copy at the time of the birth and these fees are all sent at one time, reducing the number of pieces of mail received.

Fees received were down by $490.25 for a total of $1,113,129.78.

The Com-Data System, which allows a person to charge the fee for a record to his Master or Visa charge card, has been very successful. Upon receiving all the needed information by telephone and entering it into the computer, a check payable to the bureau for the amount required can be printed by the bureau. The proper record can then be mailed or delivered by a courier service. During the peak summer months approximately 30 records a day were issued by this method. These copies are included in the service counter total.

The Division of Record Services, as did the entire bureau, suffered from a lack of permanant employees this year and the help of 10 temporary employees was utilized to keep services up to standards.

## Division of Registration Services

Over 165,000 records of birth, death, fetal death, marriage and divorce were received, edited and filed by the Division of Registration Services during the 1984 calendar year. This total reflects the registration of 5,000 fewer records than those filed in 1983 with a significant decrease in the number of fetal deaths recorded but only slight decreases in every other major registration area.

Over 31,000 applications for certified copies of current birth certificates were processed in 1984 representing a total of $150,709 in fees received from Alabama hospitals, a slight increase from the 1983 total. Only 4,600 applications for copies of current death certificates were processed in 1984 from the Division of Registration Services. The 50 percent decrease from the previous year was due to several factors. The two major ones were the newly authorized issuance of certified copies of death certificates by county health departments throughout the state and the great time reduction of total data processing of death records in this office due to the implementation of the IBM System 34 in 1984.

Throughout 1984 the division processed 7,685 delayed birth certificate files and actually filed 2,727 delayed birth certificates. Although the total number of files processed decreased this year, there was an increase in the number of delayed certificates placed on file.

**Field Services**—More than 300 people attended the seven Vital Statistics seminars conducted throughout the state during 1984. Of this total attending there were 92 hospital medical records personnel, nine coroners, 114 county health department registrars, 84 funeral home personnel and 14 University of Alabama at Birmingham students. Problems dealing with vital records' registration were covered at these seminars with the main topics—medical indexing classification and retrieval (MICAR), occupation and industry coding, and rules and regulations governing counties issuing certified copies of death certificates.

The field representative traveled over 4,000 miles and made more than 100 visits to hospitals, physicians, funeral homes, coroners and local health departments. The miles traveled and visits made were fewer than previously due mainly to the effectiveness of the vital statistics seminars. During 1984 more than 25 physicians who filed late certificates were reported to the State Committee of Public Health.

Each quarter field services releases a vital statistics scoreboard which ranks the counties in numerical order based on percentage of promptness of birth certificates filed. During the first quarter of 1984, 16 counties ranked 95 percent or more in promptness while 11 counties ranked below 50 percent. Field services is dedicated to raising all 67 counties above the 97 percent level.

## Division of Statistical Services

The Division of Statistical Services of the Bureau of Vital Statistics is a service division seeking to provide current vital event data to data users by answering requests and by distributing printed materials.

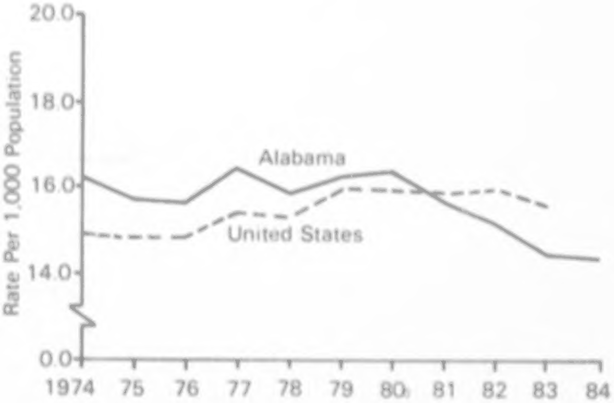
Continued publication of vital event data, natality, mortality, teenage birth statistics, resident births by place of occurrence, and data from the linkage of infant deaths and birth records was accomplished in 1984. Numerous other data prepared for the first time during 1984 but not published included such items as disposition of the body at death, certain causes of death by occupation and industry of the deceased, maternal mortality, and deaths from unknown causes.

A renewed contract with the Cooperative Health Statistics System of the Department of Health and Human Services enables the Bureau of Vital Statistics to provide data to the National Center for Health Statistics compatible with data from other states in order to develop a current and accurate data base.

All vital event data given as follows is provisional based on an estimated count of the vital events occurring to Alabama residents during 1984.

**Births**—The estimated crude birth rate showed a continued slight decline during 1984. The estimated 59,507 live births occurring to Alabama residents resulted in a crude live birth rate of 14.3. This is the lowest birth rate ever recorded in Alabama.

GRAPH 11-1
LIVE BIRTH RATES
ALABAMA AND UNITED STATES
1974-1984



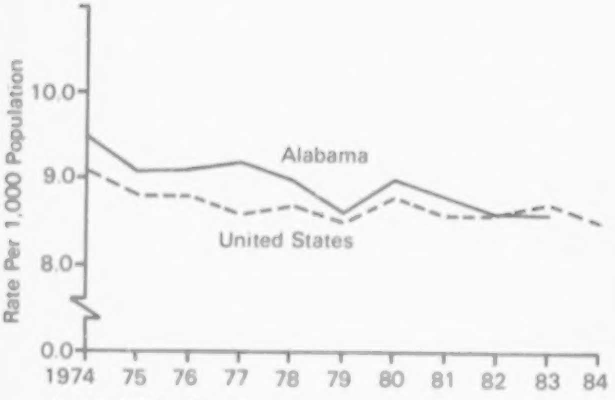
U.S. Rate 1984 Not Available
U.S. Rate 1983 and Alabama 1984 Provisional

## TABLE 11-2
## RECAP OF RECORD SERVICES ACTIVITIES
## 1984 and 1983

| | 1984 | 1983 | Change |
|---|---|---|---|
| Legitimations | | | |
| Completed | 2,546 | 2,308 | + 238 |
| Court Legitimations Pending | 243 | 157 | + 86 |
| Adoptions | | | |
| Alabama Born | 2,456 | 2,672 | - 216 |
| Out-of-state Adoptions | 726 | 797 | - 71 |
| TOTAL | 3,182 | 3,469 | - 287 |
| Uniform Parentage Act | 135 | NONE | |
| Amendments | | | |
| Births | 9,581 | 8,551 | + 1,030 |
| Deaths | 145 | 115 | + 30 |
| Marriages | 45 | 40 | + 5 |
| Noncertified Copies Issued | | | |
| Unpaid | | | |
| Copies to copy-issuing centers | 1,758 | 1,567 | +191 |
| Copies to child-placing agencies | 515 | 508 | +7 |
| Paid | | | |
| Noncertified births and deaths | 2,141 | 2,252 | - 111 |
| No Records | | | |
| Births | 14,559 | 14,984 | - 425 |
| Deaths | 1,107 | 854 | + 253 |
| Marriages | 224 | 327 | - 103 |
| Divorce Reports | 183 | 220 | - 37 |
| TOTAL | 16,082 | 16,385 | - 303 |
| Free Welfare Verified for Alabama | | | |
| Pensions and Security | 362 | 479 | - 117 |
| Located and Verified | 305 | 386 | - 81 |
| No records | 57 | 93 | - 36 |
| Pieces of Mail Received | 166,558 | 176,120 | - 9,562 |
| Fees Received | $1,113,129.78 | $1,113,620.03 | - $490.25 |
| Certified Copies Issued by Mail | 170,427 | 176,215 | - 5,788 |
| Copies Issued at Service Counter | 57,264 | 52,296 | + 4,968 |
| TOTAL | 227,691 | 228,511 | - 820 |
| Certified Copies by Kind | | | |
| Births | 174,600 | 167,712 | + 6,888 |
| Deaths | 45,957 | 58,532 | - 12,575 |
| Marriages | 1,973 | 1,967 | - 6 |
| Divorce Reports | 303 | 284 | +19 |
| Stillbirths | 17 | 16 | + 1 |

**Deaths**—The general mortality rate for 1984 is estimated to be slightly below the mortality rate of 1983. Preliminary data indicates that the 35,613 deaths to Alabama residents during 1984 will result in a provisional crude mortality rate of 8.5. This represents an increase over the 1983 figures of approximately 142 in the number of deaths with the mortality rate decreasing from 8.7 to 8.5.

### GRAPH 11-2
### MORTALITY RATES
### ALABAMA AND UNITED STATES
### 1974-1984



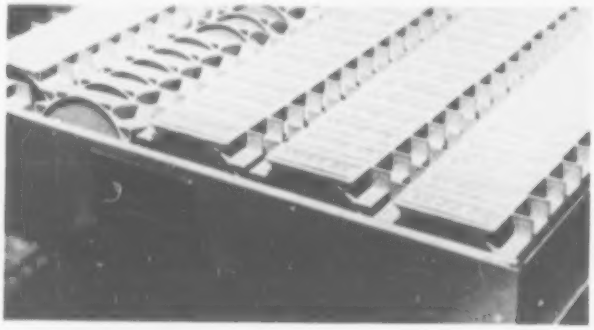
U.S. Rate 1984 Not Available
U.S Rate 1982, 1983 and Alabama Rate 1984 Provisional

Heart disease continues to be the leading cause of death to Alabama residents. Preliminary data indicates that the number of heart disease deaths will increase but the rate of heart disease mortality will decrease during 1984. Heart disease has been the leading cause of death for over 50 years.

Malignant neoplasms continue to be the second leading cause of death to Alabama residents. An estimated number of 7,587 deaths resulted in a mortality rate of 181.9 per 100,000 population for malignant neoplasms.

Cerebrovascular diseases, the third leading cause of death in 1984, cause the death of an estimated 3,214 Alabamians. This is about 9 percent of all deaths. The estimated cerebrovascular disease mortality rate is 77.1.

The estimated number of accidental deaths in Alabama indicate a slight decrease in the number and mortality rate. The provisional accidental mortaltiy rate is about 45.8.



### TABLE 11-3
### LEADING CAUSES OF DEATH
### 1984 and 1983

| Rank | 1984<br>Number* | Rate* | Cause of Death | Rank | 1983<br>Number | Rate |
|---|---|---|---|---|---|---|
| — | 35,613 | — | Total All Causes | — | 35,471 | — |
| 1 | 12,541 | 300.7 | Diseases of the Heart | 1 | 12,385 | 302.5 |
| 2 | 7,587 | 181.9 | Malignant Neoplasms | 2 | 7,495 | 183.1 |
| 3 | 3,214 | 77.1 | Cerebrovascular Diseases | 3 | 3,152 | 77.0 |
| 4 | 1,910 | 45.8 | Accidents | 4 | 2,037 | 49.8 |
| 5 | 1,262 | 30.3 | Chronic Obstructive Pulmonary Diseases & Allied Causes | 5 | 1,063 | 26.0 |
| 6 | 769 | 18.4 | Pneumonia & Influenza | 6 | 707 | 17.3 |
| 7 | 696 | 16.7 | Diabetes Mellitus | 8 | 603 | 14.7 |
| 8 | 647 | 15.5 | Diseases of the Arteries | 7 | 644 | 15.8 |
| 9 | 470 | 11.3 | Suicide | 9 | 428 | 10.5 |
| 10 | 391 | 9.4 | Homicide | 10 | 423 | 10.3 |
| — | 6,126 | — | All Other Causes | — | 6,534 | — |

*Provisional

**Infant and Fetal Mortality**—Indications are that the final number of infant deaths and the infant mortality rate for 1984 will be approximately the same as the 1983 figures. The estimated 772 infant deaths for 1984 resulted in an infant mortality rate of 13.0. A slight increase in the neonatal mortality also occurred as the estimated neonatal deaths increased from 486 to 521.

Preliminary data indicates that the number of fetal deaths decreased in 1984 to 624, a numerical decrease of approximately 34. The provisional fetal death mortality rate was 10.5.

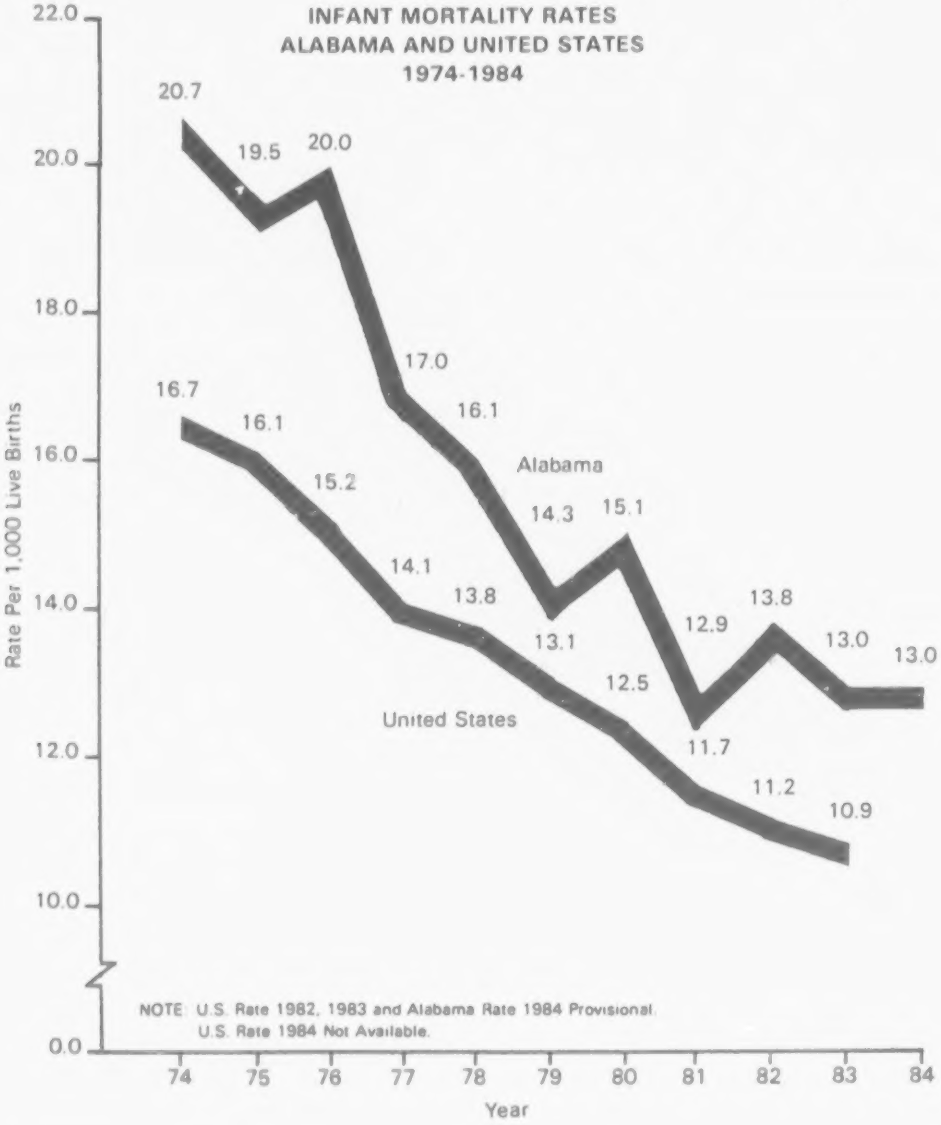
**Maternal Mortality**—An estimated 11 mothers died from complications of childbirth, labor and the puerperium during the year and resulted in a 1.8 rate per 10,000 live births.

**Marriages and Divorces**—The estimated number of marriages during 1984 remained about the same as the previous year. This estimated number of 47,355 resulted in a provisional marriage rate of 11.4 per 1,000 population.

The estimated 26,170 divorces occurring during 1984 in Alabama represent a numerical decrease of 114. The estimated divorce rate of 6.0 per 1,000 population was slightly lower than the 6.2 rate of 1983.

**Population**—Alabama's estimated midyear 1983 population was 4,170,000 based on 1980 census data. About 73 percent of the population was white. There were more females than males in Alabama. The sex ratio remained almost the same as in 1983—about 108 females per 100 males.

GRAPH 11-3
INFANT MORTALITY RATES
ALABAMA AND UNITED STATES
1974-1984



NOTE: U.S. Rate 1982, 1983 and Alabama Rate 1984 Provisional.
U.S. Rate 1984 Not Available.

## ASSISTANT STATE HEALTH OFFICERS, LOCAL HEALTH OFFICERS & HEALTH SERVICES ADMINISTRATORS

November 1, 1984

| COUNTY/DISTRICT | NAME | TITLE | TEL. NO. | MAILING ADDRESS |
|---|---|---|---|---|
| PUBLIC HEALTH AREA # 1 | Betty W. Vaughan, M.D. | ASHO | 353-7021 | Box 1628, Decatur 35602 |
| NORTHWEST AL REGIONAL HEALTH DEPT. | | | 383-1231 | Box 929, Tuscumbia 35674 |
| Colbert | Karen Landers, M.D. | DHO | 383-1231 | Box 929, Tuscumbia 35674 |
| Franklin | Karen Landers, M.D. | DHO | 332-2700 | Box 100, Russellville 35653 |
| Lauderdale | Karen Landers, M.D. | DHO | 764-7453 | Box 1036, Florence 35630 |
| TRI-COUNTY DIST. HEALTH SERVICES | | | 353-7021 | Box 1628, Decatur 35602 |
| Cullman | Betty W. Vaughan, M.D. | DHO | 734-1030 | 305 N. 4th Ave., N.E., Cullman 35055 |
| Lawrence | Betty W. Vaughan, M.D. | DHO | 974-1141 | Box 308, Moulton 35650 |
| Limestone | Betty W. Vaughan, M.D. | DHO | 232-3200 | 310 W. Elm St., Athens 35611 |
| Morgan | Betty W. Vaughan, M.D. | DHO | 353-7021 | Box 1628, Decatur 35602 |
| Jackson | Lyle Haas | HSA | 259-4161 | Box 398, Scottsboro 35768 |
| Madison | Lawrence L. Robey, M.D. | LHO | 539-3711 | Box 425, Huntsville 35804 |
| Marion | | | 921-3118 | Box 158, Hamilton 35570 |
| Marshall | Lyle Haas | HSA | 582-3174 | 275 Gunter Ave., Guntersville 35976 |
| Winston | | | 489-2101 | Box 57, Double Springs 35553 |
| PUBLIC HEALTH AREA # 2 | E. Kenneth Aycock, M.D. | ASHO | 345-4131 | 1101 Jackson Ave., Tuscaloosa 35401 |
| WEST AL DISTRICT HEALTH DEPT. | | | 345-4131 | 1101 Jackson Ave., Tuscaloosa 35401 |
| Bibb | E. Kenneth Aycock, M.D. | DHO | 926-9702 | 105 Church St., Centreville 35042 |
| Greene | E. Kenneth Aycock, M.D. | DHO | 372-9361 | Box 269, Eutaw 35462 |
| Lamar | E. Kenneth Aycock, M.D. | DHO | 695-9195 | Box 548, Vernon 35592 |
| Pickens | E. Kenneth Aycock, M.D. | DHO | 367-8157 | Rt. 2, Box 202, Carrollton 35447 |
| Tuscaloosa | E. Kenneth Aycock, M.D. | DHO | 345-4131 | 1101 Jackson Ave., Tuscaloosa 35401 |
| Fayette | John Toppins | HSA | 932-5260 | Box 351, Fayette 35555 |
| Hale | E. Kenneth Aycock M.D. | ASHO | 624-3018 | Box 87, Greensboro 36744 |
| PUBLIC HEALTH AREA # 3 | Mary J. Tiller, M.D. | ASHO | 933-9110 | Box 2646, Birmingham 35202 |
| Blount | Mary Ann Pass, M.D. | LHO | 274-2120 | Box 96, Oneonta 35121 |
| Chilton | Mary Ann Pass, M.D. | LHO | 755-1287 | Box 147, Clanton 35045 |
| Jefferson | Mary J. Tiller, M.D. | LHO | 933-9110 | Box 2646, Birmingham 35202 |
| St. Clair | Mary Ann Pass, M.D. | LHO | 594-3171 | Box 249, Ashville 35953 |
| St. Clair | Mary Ann Pass, M.D. | LHO | 338-3357 | Box 627, Pell City 35125 |
| Shelby | Mary Ann Pass, M.D. | LHO | 669-3117 | Box 976, Columbiana 35051 |
| Walker | Mary Ann Pass, M.D. | LHO | 221-9775 | Box 690, Jasper 35501 |
| PUBLIC HEALTH AREA # 4 | Robert J. Henderson, M.D. | ASHO | 236-3274 | Box 488, Anniston 36202 |
| Calhoun | John Screws | HSA | 237-7523 | Box 488, Anniston 36202 |
| Chambers | Ellene Mitchell | HSA | 864-8834 | Box 319, LaFayette 36862 |
| Cherokee | Jim C. Russell | HSA | 927-3132 | Box 176, Centre 35960 |
| Clay | Fred W. Dauser | HSA | 354-2181 | Box 325, Ashland 36251 |
| Cleburne | John Screws | HSA | 463-2296 | Box 36, Heflin 36264 |
| Coosa | Fred W. Dauser | HSA | 377-4364 | Box 235, Rockford 35136 |
| DeKalb | Jim C. Russell | HSA | 845-1931 | Box 347, Fort Payne 35967 |
| Etowah | Jean Foster | HSA | 547-6311 | Box 555, Gadsden 35902 |
| Randolph | Ellene Mitchell | HSA | 863-8981 | 527 Price St., Roanoke 36274 |
| Talladega | Fred W. Dauser | HSA | 362-2593 | Box 1012, Talladega 35160 |
| Tallapoosa | Ellene Mitchell | HSA | 825-9203 | Box 125, Dadeville 36853 |
| PUBLIC HEALTH AREA # 5 | Joyce Gendzwill, M.D. | ASHO | 261-5133 | State Office Bldg., Room 900, Montgomery 36130-1701 |
| Autauga | Bobby H. Bryan | HSA | 365-3349 | Box G, Prattville 36067 |
| Barbour | Russell Killingsworth | HSA | 687-4808 | Box 238, Eufaula 36027 |
| Bullock | Walter Pack | HSA | 738-3030 | Drawer 430, Union Springs 36089 |
| Butler | Ziba Anderson | HSA | 382-3154 | Box 339, Greenville 36037 |
| Coffee | Kenneth Ball | HSA | 897-2523 | Box 280, Elba 36323 |
| Coffee | Kenneth Ball | HSA | 347-9574 | Box 1316, Enterprise 36330 |
| Covington | Ziba Anderson | HSA | 222-1175 | Box 186, Andalusia 36420 |
| Crenshaw | Ron Wheeler | HSA | 335-6568 | Box 326, Luverne 36049 |
| Dale | Charles Oliver | HSA | 774-5146 | Box 397, Ozark 36360 |
| Elmore | Bobby H. Bryan | HSA | 567-5171 | Box 316, Wetumpka 36092 |
| Geneva | Kenneth Ball | HSA | 684-2257 | Box 386, Geneva 36340 |
| Henry | Russell Killingsworth | HSA | 585-2660 | Box 86, Abbeville 36310 |
| Houston | Marilyn E. Crumpton, M.D. | LHO | 793-6404 | Drawer 2087, Dothan 36302 |
| Lee | Walter Pack | HSA | 745-5765 | Box 2207, Opelika 36801 |
| Lowndes | Bobby H. Bryan | HSA | 548-2564 | Box 35, Hayneville 36040 |
| Macon | Walter Pack | HSA | 727-1800 | Drawer 180, Tuskegee 36083 |
| Montgomery | Mary G. Dorrough, M.D. | LHO | 263-6671 | Box 4008, Montgomery 36195-3601 |
| Pike | Ron Wheeler | HSA | 566-2860 | Box 425, Troy 36081 |
| Russell | | HSA | 297-0251 | Box 548, Phenix City 36867 |
| PUBLIC HEALTH AREA # 6 | VACANT | ASHO | | |
| | Tom N. Phillips | HSA | 261-5081 | State Office Bldg., Room 307, Montgomery 36130-1701 |
| GULF COAST DISTRICT HEALTH DEPT. | | | 937-9561 | Box 150, Bay Minette 36507 |
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| Conecuh | C. P. St. Amant, Jr., M.D. | DHO | 578-1952 | 526 Bellville St., Evergreen 36401 |
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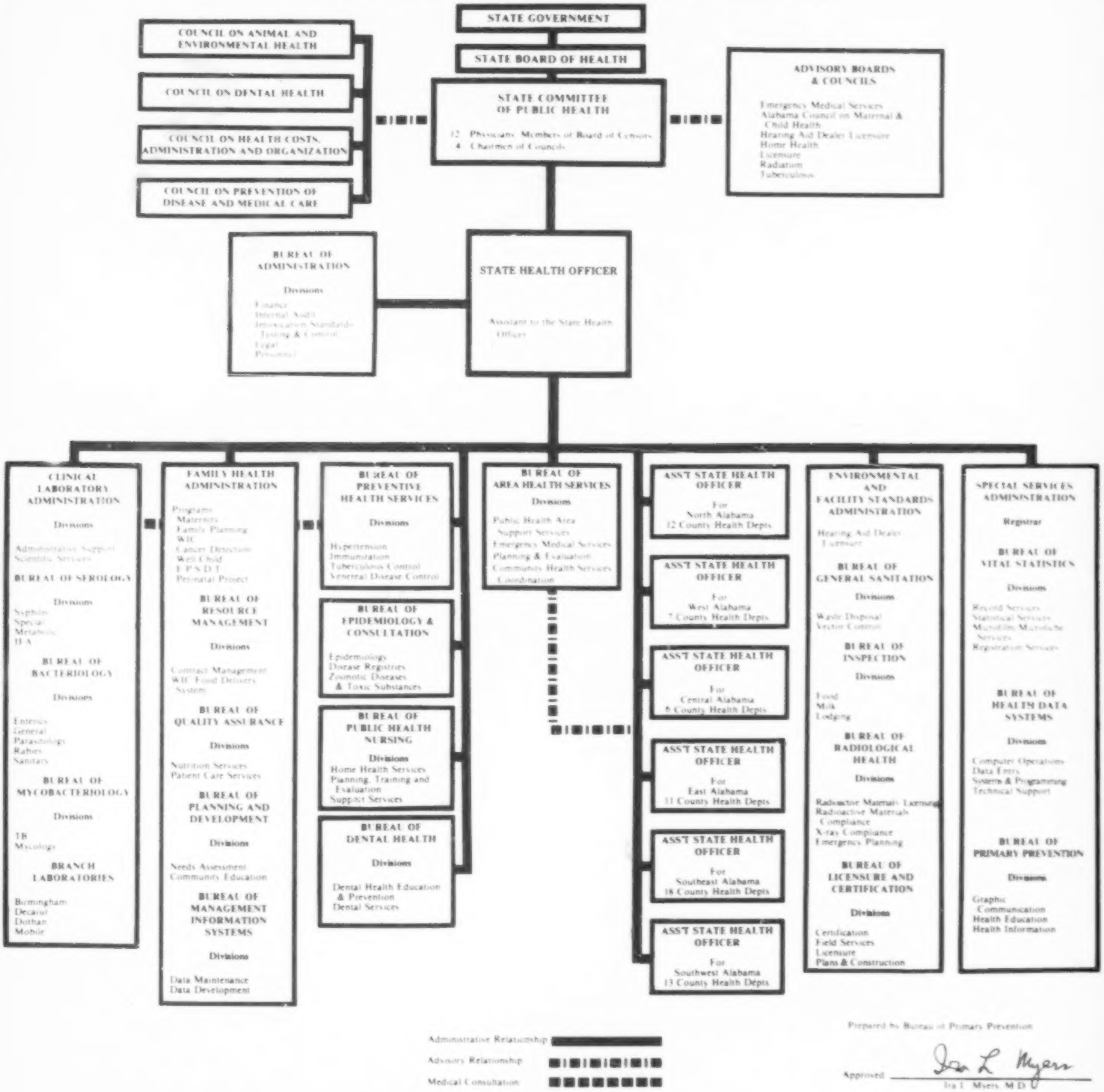
| Choctaw | Richard Jayne | HSA | 459-2494 | 315 E. Pushmataha St., Butler 36904 |
| Clarke | Bill Coleman | HSA | 275-3772 | Box 477, Grove Hill 36451 |
| Dallas | S. D. Waldrop, M.D. | LHO | 875-4401 | Box K, Selma 36702-0330 |
| Marengo | Charles Shields | HSA | 295-4205 | Box 454, Linden 36748 |
| Mobile | Alfred R. Stumpe, M.D. | LHO | 690-8158 | Box 2867, Mobile 36652 |
| Monroe | Tom N. Phillips | HSA | 575-3109 | Box 609, Monroeville 36460 |
| Perry | Tom N. Phillips | HSA | 683-6153 | Box 119, Marion 36756 |
| Sumter | Thomas C. Stuart | HSA | 652-7972 | Drawer 340, Livingston 35470 |
| Washington | Bill Coleman | HSA | 847-2245 | Box 417, Chatom 36518 |
| Wilcox | S. D. Waldrop, M.D. | LHO | 682-4515 | Box 27, Camden 36726 |

# ORGANIZATION OF THE ALABAMA DEPARTMENT OF PUBLIC HEALTH


STATE GOVERNMENT
STATE BOARD OF HEALTH
STATE COMMITTEE OF PUBLIC HEALTH
12 Physicians Members of Board of Censors
4 Chairmen of Councils
COUNCIL ON ANIMAL AND ENVIRONMENTAL HEALTH
COUNCIL ON DENTAL HEALTH
COUNCIL ON HEALTH COSTS, ADMINISTRATION AND ORGANIZATION
COUNCIL ON PREVENTION OF DISEASE AND MEDICAL CARE
ADVISORY BOARDS & COUNCILS
Emergency Medical Services
Alabama Council on Maternal & Child Health
Hearing Aid Dealer Licensure
Home Health
Licensure
Radiation
Tuberculosis
STATE HEALTH OFFICER
Assistant to the State Health Officer
BUREAU OF ADMINISTRATION
Divisions
Finance
Internal Audit
Information Standards Testing & Control
Legal
Personnel
CLINICAL LABORATORY ADMINISTRATION
Divisions
Administrative Support
Scientific Services
BUREAU OF SEROLOGY
Divisions
Syphilis
Special
Metabolic
IFA
BUREAU OF BACTERIOLOGY
Divisions
Enterics
General
Parasitology
Rabies
Sanitary
BUREAU OF MYCOBACTERIOLOGY
Divisions
TB
Mycology
BRANCH LABORATORIES
Birmingham
Decatur
Dothan
Mobile
FAMILY HEALTH ADMINISTRATION
Programs
Maternity
Family Planning
WIC
Cancer Detection
Well Child
E P S D T
Perinatal Project
BUREAU OF RESOURCE MANAGEMENT
Divisions
Contract Management
WIC Food Delivery System
BUREAU OF QUALITY ASSURANCE
Divisions
Nutrition Services
Patient Care Services
BUREAU OF PLANNING AND DEVELOPMENT
Divisions
Needs Assessment
Community Education
BUREAU OF MANAGEMENT INFORMATION SYSTEMS
Divisions
Data Maintenance
Data Development
BUREAU OF PREVENTIVE HEALTH SERVICES
Divisions
Hypertension
Immunization
Tuberculosis Control
Venereal Disease Control
BUREAU OF EPIDEMIOLOGY & CONSULTATION
Epidemiology
Disease Registries
Zoonotic Diseases & Toxic Substances
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Divisions
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Planning, Training and Evaluation
Support Services
BUREAU OF DENTAL HEALTH
Divisions
Dental Health Education & Prevention
Dental Services
BUREAU OF AREA HEALTH SERVICES
Divisions
Public Health Area Support Services
Emergency Medical Services
Planning & Evaluation
Community Health Services Coordination
ASS'T STATE HEALTH OFFICER
For
North Alabama
12 County Health Depts
ASS'T STATE HEALTH OFFICER
For
West Alabama
7 County Health Depts
ASS'T STATE HEALTH OFFICER
For
Central Alabama
6 County Health Depts
ASS'T STATE HEALTH OFFICER
For
East Alabama
11 County Health Depts
ASS'T STATE HEALTH OFFICER
For
Southeast Alabama
18 County Health Depts
ASS'T STATE HEALTH OFFICER
For
Southwest Alabama
13 County Health Depts
ENVIRONMENTAL AND FACILITY STANDARDS ADMINISTRATION
Hearing Aid Dealer Licensure
BUREAU OF GENERAL SANITATION
Divisions
Waste Disposal
Vector Control
BUREAU OF INSPECTION
Divisions
Food
Milk
Lodging
BUREAU OF RADIOLOGICAL HEALTH
Divisions
Radioactive Materials Licensing
Radioactive Materials Compliance
X-ray Compliance
Emergency Planning
BUREAU OF LICENSURE AND CERTIFICATION
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Certification
Field Services
Licensure
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SPECIAL SERVICES ADMINISTRATION
Registrar
BUREAU OF VITAL STATISTICS
Divisions
Record Services
Statistical Services
Microfilm-Microfiche Services
Registration Services
BUREAU OF HEALTH DATA SYSTEMS
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Computer Operations
Data Entry
Systems & Programming
Technical Support
BUREAU OF PRIMARY PREVENTION
Divisions
Graphic Communication
Health Education
Health Information
Administrative Relationship
Advisory Relationship
Medical Consultation

Prepared by Bureau of Primary Prevention

Approved Ira L. Myers
Ira L. Myers, M.D.